REPORT RESUMES

ED 010 846 24

SOME PERSONAL CHARACTERISTICS OF CAMPUS STUDENT LEADERS--A COMPARISON OF SOCIAL-POLITICAL ACTION LEADERS WITH FOUR OTHER CATEGORIES OF STUDENT LEADERS.

BY- WINBORN, BOB B.
INDIANA UNIV., BLOOMINGTON

REPORT NUMBER BR-6-8504 PUB DATE 23 DEC 66
CONTRACT OEC-3-7-068504-0270
EDRS PRICE MF-$0.27 HC-$7.48 187P.

DESCRIPTORS- DATA COLLECTION, STATISTICAL ANALYSIS, TESTS OF SIGNIFICANCE, *PERSONALITY ASSESSMENT, *STUDENT LEADERSHIP, *COLLEGE STUDENTS, COMPARATIVE ANALYSIS, *POLITICAL ATTITUDES, *SOCIAL ATTITUDES, SIXTEEN PERSONALITY FACTOR QUESTIONNAIRE, COLLEGE AND UNIVERSITY ENVIRONMENT SCALES, BLOOMINGTON

THIS INVESTIGATION WAS DESIGNED TO PROVIDE DATA ABOUT THE CHARACTERISTICS OF SOCIAL-POLITICAL ACTION LEADERS AT ONE UNIVERSITY AND TO COMPARE THOSE CHARACTERISTICS WITH OTHER TYPES OR CATEGORIES OF STUDENT LEADERS. NINE RESEARCH HYPOTHESES IN NULL FORM WERE FORMULATED TO FACILITATE STATISTICAL TREATMENT OF THE DATA. FROM A TOTAL OF 559 ELECTED OFFICERS OF STUDENT ORGANIZATIONS ON THE CAMPUS OF INDIANA UNIVERSITY, FIVE CATEGORIES OF STUDENT LEADERS WERE FORMED SO THAT COMPARISONS COULD BE MADE BETWEEN LEADERS OF GROUPS DIFFERING IN STATED PURPOSES AND GOALS. EACH SUBJECT COMPLETED THE "SIXTEEN PERSONALITY FACTOR QUESTIONNAIRE," THE "COLLEGE AND UNIVERSITY ENVIRONMENT SCALES," AND A PERSONAL DATA FORM. THE NINE NULL HYPOTHESES WERE REJECTED. SIGNIFICANT DIFFERENCES WERE OBSERVED AMONG GROUP LEADERS IN TERMS OF MEASURED PERSONALITY CHARACTERISTICS, PERCEIVED CAMPUS ENVIRONMENTAL CHARACTERISTICS, AND SELECTED DEMOGRAPHIC AND PERSONAL CHARACTERISTICS. THESE RESULTS SUGGESTED THAT A UNIQUE COMBINATION OF PERSONALITY TRAITS PRIMARILY INVOLVING RADICALISM, EXPEDIENCY, AND INDEPENDENCE SERVE TO DIFFERENTIATE LEADERS OF SOCIAL-POLITICAL ACTION GROUPS FROM LEADERS OF REFERENT GROUPS. (GD)

ED010846

NAA

FINAL REPORT
Project No. 6-8504
Contract No. OEC-3-7-068504-0270

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

SOME PERSONAL CHARACTERISTICS OF CAMPUS STUDENT LEADERS: A COMPARISON OF SOCIAL-POLITICAL ACTION LEADERS WITH FOUR OTHER CATEGORIES OF STUDENT LEADERS

December 1966

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

SOME PERSONAL CHARACTERISTICS OF CAMPUS STUDENT LEADERS: A COMPARISON OF SOCIAL-POLITICAL ACTION LEADERS WITH FOUR OTHER CATEGORIES OF STUDENT LEADERS

Project No. 6-8504
Contract No. OEC-3-7-068504-0270

Bob B. Winborn

December 23, 1966

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Indiana University

Bloomington, Indiana

ACKNOWLEDGEMENTS

I am particularly indebted to Mr. David G. Jansen for his invaluable assistance during this investigation. His contributions to the study extended throughout the entire time of the project.

Drs. Martinson, Shaffer, and Schreck of Indiana University also contributed in many ways to the investigation. Their efforts are greatly appreciated.

Finally my sincere thanks go to the secretarial staff of the Counseling Center of Indiana University. They were magnificant.

B. B. W.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS ii

TABLE OF CONTENTS iii

LIST OF TABLES v

CHAPTER I INTRODUCTION 1

Statement of the Problem 4

Research Hypotheses 4

Related Research 5

CHAPTER II METHOD 11

Selection of Subjects 11

Collection of the Data 13

Instrumentation 15

Statistical Procedures 17

CHAPTER III RESULTS 19

Comparisons of Personality Characteristics 19

Comparisons of Perceptions of the Campus Environment 56

Comparisons of Demographic Data 67

Interrelationships of Instruments and Selected Demographic Variables 118

Discussion 123

CHAPTER IV CONCLUSIONS, IMPLICATIONS, AND SUMMARY . . . 138

Conclusions and Implications 138

Summary 142

APPENDIXES 145

Appendix A 146

Appendix B 147

Appendix C 148

Appendix D 149

Appendix E 152

Appendix F 154

Appendix G 156

Appendix H 159

Appendix I 160

Appendix J 161

Appendix K 164

REFERENCES 172

LIST OF TABLES

No.	Title	Page
1	Total Population and Original Sample of Student Leaders	12
2	Original Sample, Obtained Sample, and Percentage of Participation of Student Leaders from the Different Group Categories	14
3	F Ratios for Differences Among Groups of Leaders for Factor A of the 16 PF	20
4	F Ratios for Differences Among Groups of Leaders for Factor C of the 16PF	21
4a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor C of the 16PF	22
5	F Ratios for Differences Among Groups of Leaders for Factor E of the 16PF	23
5a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor E of the 16PF	24
6	F Ratios for Differences Among Groups of Leaders for Factor F of the 16PF	25
6a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor F of the 16PF	26
7	F Ratios for Differences Among Groups of Leaders for Factor G of the 16PF	27
7a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor G of the 16PF	28
8	F Ratios for Differences Among Groups of Leaders for Factor I of the 16PF	29
8a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor I of the 16PF	30
9	F Ratios for Differences Among Groups of Leaders for Factor L of the 16PF	31

LIST OF TABLES CONT'D.

No.	Title	Page
9a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor L of the 16PF	32
10	F Ratios for Differences Among Groups of Leaders for Factor M of the 16PF	33
10a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor M of the 16PF	34
11	F Ratios for Differences Among Groups of Leaders for Factor N of the 16PF	35
12	F Ratios for Differences Among Groups of Leaders for Factor O of the 16PF	36
12a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor O of the 16PF	37
13	F Ratios for Differences Among Groups of Leaders for Factor Q_1 of the 16PF	38
13a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor Q_1 of the 16PF	40
14	F Ratios for Differences Among Groups of Leaders for Factor Q_2 of the 16PF	41
14a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Factor Q_2 of the 16PF	42
15	F Ratios for Differences Among Groups of Leaders for the Second-Order Introversion-Extraversion Factor of the 16PF	43
15a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the Second-Order Introversion-Extraversion Factor of the 16PF	44
16	F Ratios for Differences Among Groups of Leaders for the Second-Order Responsive Emotionality Factor of the 16PF	45

LIST OF TABLES CONT'D.

No.	Title	Page
16a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the Second-Order Responsive Emotionality Factor of the 16PF	46
17	F Ratios for Differences Among Groups of Leaders for the Second-Order Dependency Factor of the 16PF	47
17a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the Second-Order Dependency Factor of the 16PF	48
18	F Ratios for Differences Among Groups of Leaders for the Second-Order Leadership Factor of the 16PF	49
18a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the Second-Order Leadership Factor of the 16PF	50
19	F Ratios for Differences Among Groups of Leaders for the Second-Order Creativity Factor of the 16PF	51
19a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the Second-Order Creativity Factor of the 16PF	52
20	Differences Between Conservative and Liberal Social-Political Action Leaders at Indiana University on the Primary Factors of the 16PF	53
21	Differences Between Conservative and Liberal Social-Political Action Leaders at Indiana University on the Second-Order Factors of the 16PF	55
22	F Ratios for Differences Among Groups of Leaders for the CUES Practicality Scale	56
22a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the CUES Practicality Scale	58
23	F Ratios for Differences Among Groups of Leaders for the CUES Community Scale	59

LIST OF TABLES CONT'D.

No.	Title	Page
23a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the CUES Community Scale	60
24	F Ratios for Differences Among Groups of Leaders for the CUES Awareness Scale	61
24a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the CUES Awareness Scale	62
25	F Ratios for Differences Among Groups of Leaders for the CUES Propriety Scale	63
26	F Ratios for Differences Among Groups of Leaders for the CUES Scholarship Scale	64
26a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for the CUES Scholarship Scale	65
27	Differences Between Conservative and Liberal Social-Political Action Leaders at Indiana University on the Scales of the CUES	66
28	F Ratios for Differences Among Groups of Leaders for Chronological Age	68
28a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Chronological Age	69
29	F Ratios for Differences Among Groups of Leaders for Scholastic Aptitude Test Verbal Score	70
29a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Scholastic Aptitude Test Verbal Score	71
30	F Ratios for Differences Among Groups of Leaders for Scholastic Aptitude Test Mathematics Score	72
31	F Ratios for Differences Among Groups of Leaders for Cumulative Grade Point Average	73

LIST OF TABLES CONT'D.

No.	Title	Page
31a	Duncan's New Multiple Range Test Applied to the Differences Among Leaders for Cumulative Grade Point Average	74
32	Differences Between Conservative and Liberal Social-Political Action Leaders at Indiana University on Selected Demographic Variables	75
33	Differences Among Leaders in Terms of Home State	77
34	Differences Among Leaders in Terms of Class Standings	79
35	Differences Among Leaders in Terms of Major Subjects	81
36	Differences Among Leaders in Terms of Marital Status	83
37	Differences Among Leaders in Terms of Fraternity-Sorority Membership	85
38	Differences Among Leaders in Terms of Type of Student Housing	87
39	Differences Among Leaders in Terms of Political Preferences	89
40	Differences Among Leaders in Terms of Religious Preferences	91
41	Differences Among Leaders in Terms of Educational Levels of Mothers	93
42	Differences Among Leaders in Terms of Work Experiences	95
43	Differences Among Leaders in Terms of First Interest in Type of Group of Which Now a Leader	97
44	Differences Among Leaders in Terms of Number of Elected Leadership Positions Held in the Past	99
45	Differences Among Leaders in Terms of Parental Attitude Toward Present Group Leadership Roles	101
46	Differences Among Leaders in Terms of Family Participation in the Type of Group of Which Presently a Leader	103

LIST OF TABLES CONT'D.

No.	Title	Page
47	Differences Among Leaders in Terms of Chief Influence in the Direction of Present Group Membership and Leadership	105
48	Differences Among Leaders in Terms of Length of Membership in Organization of Which Now A Leader	107
49	Differences Among Leaders in Terms of Hours Per Week Spent Performing Group Leadership Functions	109
50	Differences Among Leaders in Terms of Proportion of Social Life Centering Around the Group of Which an Elected Officer	111
51	Differences Among Leaders in Terms of Chief Perceived Reason for Election to a Position of Group Leadership	113
52	Differences Among Leaders in Terms of Perceived Chief Group Goals	115
53	Differences Among Leaders in Terms of Chief Satisfaction in Present Group Leadership Roles	117
54	Correlations Among the 16PF Factors and the CUES Scales	119
55	Correlations Among the 16PF Factors and Selected Demographic Variables	121
56	Correlations Among the CUES Scales and Selected Demographic Variables	122

CHAPTER I

INTRODUCTION

Events on the campus of the University of California, Berkeley, during the fall semester of 1964, and on a smaller scale at other institutions of higher learning during recent months, have dispelled the long decried assumption of social and political apathy among college and university students. Concern about the complacent and passive student has been replaced by widespread concern among administrators and student personnel workers at the activities and demands of impatient, critical, and sophisticated young gadflies on campus. The so-called "silent generation" of students has become a generation of vocal discontent, and the relative calm of collegiate life has been interrupted by recurring manifestations of student unrest. Campus social-political action leaders have played a prominent role in the atmosphere of mounting tension between students and the college and university establishment. These leaders have shown themselves capable of capitalizing upon the new milieu of discontent, idealism, and existential concern on campus to mobilize the support of students with no background of political activity (5:13).

Prior to the 1964 student uprising at Berkeley, Governor Edmund Brown (3:66) expressed an optimism concerning the implications of the then incipient student movement which was shared by many leaders in higher education. Speaking at the June, 1961, University of Santa Clara commencement, Brown expressed gratitude to God for the growing manifestations of student interest in social and public affairs. He spoke of that interest as a potential unifying and organizing principle for campus life, and suggested that at last the colleges were becoming boot camps for citizenship. Brown concluded that America should welcome the new, militantly concerned students as a sign that it is still on the way up as a nation.

Post-Berkeley professional and non-professional comments have been less optimistic than those made by Brown. They are marked by considerably less confidence in the positive long-term implications of present social-political activity on campuses throughout the United States. There is apprehension that what happened at Berkeley may be a harbinger of trouble on many campuses, and that trustees, administration, and faculty are generally unprepared to handle the student revolution because none of the three is very familiar with students' attitudes and aspirations (15:79).

College and university professionals who were students during the era of the silent student generation have faced dilemmas as they have tried to deal with the intense morality and the demand for unequivocal commitments now characteristic of campus activitists. Some have found it difficult to maintain a perspective in dealing with individuals who ignore traditional channels for campus discussion and legislation, demand immediate solutions and make "no compromise" stands. Other college and university professionals, meanwhile, have been raising questions about the nature and extent of student involvement in campus protests, demonstrations, and pressure groups, whether from the left or the right. Is the present social-political activity on campus "primarily the work of headline hunters, egotists, and compensating personalties" (20:3), or does it reflect a mature consideration of the issues and problems of our time by basically well-adjusted individuals? What can be done to improve communication between student and non-student segments of the campus community? What might the typical campus do to derive the greatest possible educational benefit from the heightened awareness and concern of students (20:1)? How much of the current student controversy, rioting, and demonstrations has arisen out of a vacuum of formal definition of rights within the campus community (24:127)?

New forms of organization and modes of tactics have greatly enhanced the influence and force of social-political activists within numerous campus student bodies. Use of mass rallies and marches, picketing, and the "sit-in" have helped to dramatize social and political issues on campus to such a degree that the uninformed observer might easily conclude that present-day college and university campuses are seething hotbeds of discontent, and that a large number of students is involved in social-political reform activity. Outward signs appear to give an element of plausibility to the claims of some campus social-political action leaders that a large scale student revolution is imminent (22:128-129).

Williamson and Cowan (25:273-274) present data which tends to qualify any broad generalization about rampant social-political activity. Analysis of questionnaire responses from key decision makers and student leaders at 757 American four year colleges and universities revealed that fewer than one-tenth of the students were estimated to be active participants in matters involving controversial political or social issues in 57 per cent of the institutions. Estimates that one-fourth or more of the students participated in activities designed to express their viewpoints on controversial issues were obtained from only seven per cent of the schools involved.

Although the percentage of students presently engaged in social-political activity appears to be relatively small, the figures of Williamson and Cowan (25:274) represent an increase in the number of students who have been moved to action in the period from 1961 to 1964. In addition, as Katz and Sanford state (15:79), it is no longer sufficient to deal exclusively with the minority who carry forward the banner of social and political reform because the minority is now expressing the frustrations and aspirations shared by the majority of students.

What is causing the apparently burgeoning student unrest and sense of frustration on the campuses of American colleges and universities? Several individuals have attempted to answer this question. Kristol (16) speaks of an "existential revolt," a revolt against the boredom-creating structure which seems to lay the student's life out so neatly before him and against subject-matter content which so often seems irrelevant to life. Cass (3) makes reference to such factors as the trends toward bigness and depersonalization in higher education, and the common practice of having teaching assistants do much of the undergraduate teaching. Katz and Sanford (15) emphasize the growing demands for academic excellence and a decline in the emphasis upon community in the modern multiversity as sources of student unrest. They point also to the void left in the typical student's life by the decline of the college function "in loco parentis," with no concomitant definition of student rights.

The words of Heist (11:69) stand as a challenge to the administration, faculty, and student personnel workers of American colleges and universities as they face the dilemmas created by intensified social-political activity on their campuses. According to Heist, such activists are indeed to be feared, but only insofar as contemporary institutions of higher learning fail to recognize the tremendous needs of students and fail to provide the relevant education which they seek. Put another way, the long-term implications of the present student unrest and social-political activity will to a significant degree depend upon the success or failure of the college and university establishment in the understanding of, communication with, and programming for its students.

Against the background of student unrest and widespread concern about student social-political activism, the present study was conceived and developed. The study was designed to provide data about the characteristics of social-political action leaders at one institution, Indiana University, and to compare the characteristics of social-political action leaders with other types or categories of student leaders.

Statement of the Problem

The problem of the study was sixfold: 1) To determine if Social-Political Action leaders (elected officers) at Indiana University differed significantly from four other types of elected campus officers on personality dimensions assessed by the Sixteen Personality Factor Questionnaire (16PF); 2) To determine if Social-Political Action leaders at Indiana University differed significantly from four other types of elected officers in terms of perception of the prevailing campus environmental press as assessed by the College and University Scales (CUES); 3) To determine if Social-Political Action leaders at Indiana University differed significantly from four other types of elected officers in terms of selected personal and demographic variables; 4) To determine if "Liberal" Social-Political Action leaders at Indiana University differed significantly from "Conservative" Social-Political Action leaders in terms of personality dimensions, perception of the prevailing environmental press, and selected demographic characteristics; 5) To determine if male and female leaders across five categories at Indiana University differed significantly in terms of personality characteristics, perception of the campus environment, and selected demographic variables; 6) To determine the inter-relationships among the 16PF scales, the CUES scales, and selected demographic characteristics for elected campus officers at Indiana University.

Research Hypotheses

In order to facilitate statistical treatment of the data, the following research hypotheses were formulated in null form:

1. There are no significant differences in personality characteristics as measured by the 16PF among the compared categories of student leaders at Indiana University.
2. There are no significant differences in 16PF inventoried personality characteristics between "Liberal" and "Conservative" segments of the Social-Political Action category.
3. There are no significant differences in measured personality characteristics between male and female elected leaders across the five group categories.
4. There are no significant differences in perceived campus environmental characteristics among compared categories of campus group leaders.
5. There are no significant differences in perceived campus environmental characteristics between "Liberal" and "Conservative" group leaders within the Social-Political Action category.

6. There are no significant differences in perceived campus environmental characteristics between male and female elected leaders across the five group categories.

7. There are no significant differences in selected types of personal and demographic characteristics among compared categories of campus group leaders.

8. There are no significant differences in selected demographic characteristics between "Liberal" and "Conservative" segments of the Social-Political Action category.

9. There are no significant inter-correlations among the 16PF scales, the CUES scales, and selected demographic variables for the leader subjects.

Related Research

Since the study was designed to provide data of three types, the review of the literature was divided into three sections. Thus, the review embraced studies providing relevant information concerning college and university students and leaders in the following areas: 1) personality characteristics; 2) perceptions of the campus environment and the prevailing environmental press; and 3) demographic characteristics.

Studies of Personality Characteristics. Of particular relevance to this study is the work of Williamson and Hoyt (26) at the University of Minnesota. Using the Minnesota Multiphasic Personality Inventory as the measure of personality characteristics, they compared political activity leaders (elected officers and major committee members) with four other categories of campus group leaders. Both male and female political activity leaders differed significantly from other types of student leaders on the paranoia and psychopathic deviate scales of the MMPI, while male political activity leaders differed significantly from other types of campus leaders on the hypomania scale. Further analysis of the data revealed that the Republican ("conservative") male leaders ranked significantly lower than several types of more "liberal" political activity group leaders on the paranoia, psychopathic deviate, hysteria, and masculinity-femininity scales of the MMPI.

Williamson and Hoyt (26:77-78) concluded that student leaders of campus political activity groups, and especially those of a "liberal" and "radical" cast, are characteristically different from leaders of other types of campus groups. The investigators suggested that the motivations of such leaders tend to be such as to justify use of such descriptive terms as "unstable" and "neurotic."

Heist (11) compared four samples of members of the Berkeley Free Speech Movement with a freshman class and samples from two senior classes at Berkeley on the basis of measured personality characteristics. His results show that the "volunteer" and "arrested" samples of the FSM participants differed significantly from all reference groups on scales which suggested that they were more autonomous, more skeptical of religious beliefs and practices, and more able to express impulses in conscious thought and overt action.

Other results indicate that the samples of members of the Free Speech Movement differ from comparison groups in several areas of intellectual activity such as interest in ideas, theoretical orientation, esthetic interests, and interest in complex, ambigious ideas and situations. They also tend to admit to symptoms of anxiety and worry to a greater extent than do subjects from freshman or senior classes.

Watts and Whittaker (23) have also studied members of the Berkeley Free Speech Movement. They selected participants during a "sit-in" on a chance basis and compared their responses to a questionnaire with those from a random sample of the Berkeley student population. Like Heist (11) they found that formalized religion played a less significant part in the lives of FSM members than for students of the cross-section sample. Contrary to expectations, the FSM members were less rigid as measured by a flexibility-rigidity scale. Watts and Whittaker noted that this finding was of special interest in view of the purported rigidity of FSM members in their communication and negotiations with the University of California administration.

The investigations reported above indicate that leaders and participants of political action groups differ significantly on a number of variables from leaders of other types of groups, freshman and senior students and a cross-section of a campus population. The results suggest especially that leaders and participants of campus political action groups tend to be impulsive, unstable, and anxious. Such conclusions have not been reached by investigators who have studied personality characteristics of campus leaders without giving special attention to social-political action leaders. Some (2, 14) have reported leaders to have better personal adjustment than non-leaders. Holtzman (13) found a +.77 correlation between adjustment and sociometric leadership.

Studies of Perception of College Environments. Some of the characteristics of college environments as they relate to various targets of student protest and student demonstrations have been analyzed by Pace (17:78-87). His observations gained their perspective from the responses of students at approximately 100 colleges and universities to the *College and University Environment Scales* (*CUES*). Items relating to such targets of student protest as teaching and faculty-student relationships, freedom or constraint, and stimulation or suppression of personal, social, and political activities were distinguished and analyzed. Pace noted that prestige liberal arts colleges tend to provide for the greatest encouragement of social and political thinking and action and to have the greatest student response in the social-political area. The large multipurpose institutions were viewed as providing many social and political stimuli, but not perceived as generating a widespread response to these stimuli. Pace suggested that perhaps the response at the large universities is in reality quite ample. It may be that the response does not stand out with sufficient clarity amid the diversity, complexity, and magnitude of the overall environment so as to be distinguished as characteristic of the environment.

Pace (17:89-90) compared the results of his study of student protests with Williamson and Cowan's (25) study of students and academic freedom. The latter investigation was based upon the results of inquiries sent to the presidents, deans of students, chairmen of student affairs committees, student body presidents, and editors of the student newspapers in all of the four-year accredited institutions in the country. Rank orders for the Pace and Williamson and Cowan studies were almost identical. The high prestige, highly selective, liberal arts colleges and the large public and private nonsectarian universities emerged as having the most permissive and active environments in respect to social-political interest and activity. Strongly denominational colleges, including Roman Catholic colleges and junior colleges, proved to be the least permissive. Smaller universities, state colleges, and teachers colleges occupied a middle position.

Student perceptions of the prevailing environmental press at the Indiana University main campus (Bloomington) were compared with student environmental perceptions at Indiana University's five regional campuses by Coker (4:191-198). Using the *College and University Environment Scales* (*CUES*), the investigator found significant differences among the six campuses on all five *CUES* scales. Student participants from the main campus scored significantly higher in terms of emphasis upon Practicality (personal status, procedures, practical benefits) than students from any other campus. The large Bloomington campus was also perceived as having a stronger press toward Community (friendliness, cohesiveness, group orientation) than any of the regional campuses. In this instance, bigness did not appear to be associated with unfriendliness or lack of campus cohesiveness.

Coker (4:194-196) found that the Bloomington campus of Indiana University tended to place significantly greater emphasis upon Awareness (concern for personal, poetic, and political meaning) and upon Scholarship than did the regional campuses. The Bloomington campus was perceived as having the least environmental press toward propriety. As such, the Bloomington campus environment was perceived by students to be characterized by more demonstrative, aggressive, risk-taking, and inconsiderate behavior than any of the regional campuses.

Responses of students in Arts and Sciences, Education, and Business to the CUES were analyzed by Henry (12:161-167) at Indiana University. Significant differences among academic divisions were found on the Practicality, Community, and Propriety scales of the CUES. Business students scored significantly higher on the Practicality scale and significantly lower on the Propriety scale than students in Arts and Sciences and Education. Responses of Arts and Science students to the CUES Community scale suggested that they perceived the Indiana University campus environment as emphasizing friendliness and cohesiveness to a significantly lesser degree than did students in Business or Education. No significant differences among academic areas were found on the Awareness and Scholarship scales.

Studies of Personal and Demographic Characteristics. Heist (11:62-63) reviewed the results of several research projects conducted by the Center for Higher Education, University of California, Berkeley, involving students, leaders and leadership groups. His summary was limited to leaders and groups who participated in protest movements on three campuses (a protest against the administration, a protest against existing social problems, and opposition concerning issues in the larger community). The leaders, viewed as a group, were significantly brighter than the average students in their respective colleges. Though they came from a diversity of homes and their fathers were engaged in a variety of occupations, all came from homes where the religious affiliations were of a liberal bent, or, perhaps more accurately, where religious affiliation could be termed tenuous or unimportant. Over half of the leaders classified themselves as agnostic or non-religious as entering freshmen, while none of them were active or participative in a denominational group at the time of graduation from college. However, Heist warned against glibly calling these protest leaders non-religious. He found them to be men and women who were morally concerned about numerous social and political topics and who were given to analysis of the ethical bases of their decisions and behavior.

Results of a study by Watts and Whittaker (23) indicated that the Free Speech Movement members involved in the University of California, Berkeley, Administration Building sit-ins were significantly younger and more homogeneous in age, contained a larger proportion of females, and had parents who were more academically elite (in terms of proportion of M.A. and Ph.D. degrees) than a random cross-section of students on campus. No significant differences were found in number of siblings or in accumulative grade point averages.

During recent years the attitudes of college and university students toward such public issues as war, civil rights, Communism, and religion have frequently been assessed. With some consistency, according to Bereiter and Freedman (1:568-571), students in certain academic areas have tended toward positions which are generally regarded as liberal, whereas students in other academic areas have inclined toward conservative positions. Students in social science have typically been found to be the most liberal group, while students in engineering and agriculture have even more consistently appeared among the most conservative. Science, literature, and arts groups have usually been found somewhere between the two extremes, with the science students tending to be more conservative than students in literature and arts. Students in education have proved difficult to label. Those planning to teach in secondary schools have shown a tendency to reflect the attitudes of their chosen teaching areas, while prospective elementary school and physical education teachers have with some consistency manifested attitudes similar to the most conservative groups.

Consistently the most conservative groups of students have been enrolled in applied rather than purely academic fields. Bereiter and Freedman (1:569) suggest that a major factor in helping to account for this conservatism may be that the applied fields tend to draw students from lower socio-economic backgrounds than do the academic fields. Put another way, the attitudes of students in the applied fields differ from those in academic majors in the same way that attitudes of the general public differ from those of college students. Seeking higher education primarily for some special vocational preparation, the applied-field students quite consistently tend to resemble people in the work-a-day world more than they resemble academicians.

Schreck (19) reported a brief analysis of the academic pursuits and academic achievement of student leaders at Indiana University. Subjects were 92 students holding 111 elected campus leadership positions during the second semester of the 1960-61 school year. The results indicated that the subjects had achieved a 3.13 ("B") grade point average as a group during the fall semester, with grade averages of individual leaders ranging from 2.40 to 3.73 among organizations. Arts and Science students (58.7%) were greatly over-represented in leadership positions in view of the fact that they represented only 24.6% of the total campus population, while Business students (21.7%) were slightly over-represented. Junior Division (Freshmen) students, who comprised 42.3% of the campus population, accounted for only 4.3% of elected student leaders. The School of Education, the School of Health, Physical Education, and Recreation, and the Music School contributed leaders in proportion to their respective enrollments.

A breakdown of the 54 Arts and Science students on the basis of specific majors by Schreck (19:2) revealed that 41% were social science students. The humanities area accounted for 30% of elected student leaders enrolled in Arts and Sciences, while the science field contributed 15%.

CHAPTER II

METHOD

Selection of Subjects

Early in the contemplation of a possible study of Indiana University student social-political action groups, Dr. Thomas Schreck, Director of Student Activities and Assistant Dean of Students at Indiana University, was contacted. The general idea was met with enthusiasm and a promise of cooperation by Schreck. After discussing several alternative approaches to a study of campus social-political action groups and a comparison of such groups with other types of campus groups with the investigator, he offered to contact elected representatives of the social-political action groups registered with the Student Activities Office of Indiana University about a possible study.

Schreck learned that the elected leaders of the social-political action groups were willing to cooperate in a study limited to officers per se. However, there were negative reactions from some groups to taking a sample of both leaders and members of the social-political action groups and making leader-leader, member-member, and leader-member comparisons, or to surveying members to determine leaders within the groups other than elected officers. Thus, Schreck found, as did Williamson and Hoyt (26) that it is difficult to secure cooperation of "liberal" and "radical" student group members. He also found that recent publicity had made them suspicious of inquiries and investigations. Further, since no group membership rosters are kept in the files of the Indiana Student Activities Office because of legal and policy considerations, Schreck felt that the attempt to obtain or use such lists would prove detrimental to established policy and relationships, and would be met by resistance. Therefore, it was decided to limit the study to elected officers and to work with the cooperation of the Indiana University Student Activities Office in contacting the leader subjects.

The original total population from which the study sample was drawn consisted of 559 elected officers of recognized student organizations on the campus of Indiana University. For purposes of the study, the total population was divided into five types or categories of student leaders so that comparisons could be made between leaders of groups differing in stated purposes and goals. The division was made into the following categories: 1) *Social-Political Action Group Leaders* - e.g., elected officers and major committee chairmen of the eight social-political action groups organized and registered according to the procedures established by the Indiana University Student Activities Office; 2) *Religious Organization Leaders* - e.g., elected officers of the ten recognized religious organizations at Indiana University; 3) *University Residence Hall Leaders* - e.g., elected officers and governors of the nine undergraduate residence quadrangles at Indiana University; 4) *Socio-Activities Leaders* - e.g., elected officers of officially recognized socio-activities (special interest, service, and program) groups at Indiana University; and 5) *Fraternal Leaders* - e.g., elected officers of campus sanctioned fraternities and sororities at Indiana University.

The original sample included all of the elected officers within the Social-Political Action and Religious group categories. A one-third sample was taken of the Residence Hall, Socio-Activity and Fraternal leaders by using a Table of Random Numbers. This sampling procedure was followed so that there would be approximately the same number of subjects delegated to each of the categories being compared. Table 1 summarizes the results of the initial sampling.

TABLE 1. TOTAL POPULATION AND ORIGINAL SAMPLE OF STUDENT LEADERS

Group category	Population number		Original sample number drawn		
	male	female	male	female	total
Social-Political Action	34	21	34	21	55
Religious	29	22	29	22	51
Residence Hall	79	74	23	28	51
Socio-Activities	78	67	26	22	48
Fraternal	87	68	28	24	52
Total	307	252	140	117	257

Collection of the Data

Campus officers selected according to the random procedure were sent a letter in February, 1966, describing the research project and encouraging participation in it. The letter was printed under the Dean of Students' letterhead and was signed by Dean of Students Robert H. Shaffer and Director of Student Activities Thomas C. Schreck. (A copy of this letter is presented in Appendix A.) Leaders were informed that the study was being conducted by the Division of Student Personnel and that all data obtained would be treated in complete confidence.

Ten days after the initial letter had been sent, a second letter over the Dean of Students' signature was mailed to the leader sample. (A copy of this letter is presented in Appendix B.) This letter urged cooperation and suggested seven alternative times for officers to participate in the investigation. No attempt was made to schedule leaders for testing sessions on the basis of group type. The subjects were encouraged to come to the scheduled session which was most convenient in terms of other personal commitments.

Subjects who did not take part in the original testing sessions were sent a follow-up letter, again over Dean Shaffer's signature, during the latter part of March, 1966. (A copy of this letter is presented in Appendix C.)

The initial letter of invitation met with a 56 per cent response from leader subjects, while the follow-up letter netted an additional 17 per cent. Student leaders who did not respond to either of the two letters inviting them to group testing sessions were contacted individually by telephone. Those called, with few exceptions, responded affirmately to the invitation to come to the Indiana University Counseling Office for testing on an individual basis. The individual testing extended from April 10, 1966, to May 13, 1966.

Participation of students in terms of response to the initial invitation and follow-up efforts is indicated in Table 2. The original sample, obtained sample, and percentage of participation are tabulated according to group category and sex. (Specific groups included in the Social-Political Action, Religious, and Socio-Activities categories are presented in Appendix D.)

TABLE 2. ORIGINAL SAMPLE, OBTAINED SAMPLE, AND PERCENTAGE OF PARTICIPATION OF STUDENT LEADERS FROM THE DIFFERENT GROUP CATEGORIES

Group	Original number		Obtained number		Obtained percent		Total percent
	M	F	M	F	M	F	
Social-Political							
Conservative	18	10	15	08	83	80	82
Liberal	16	11	13	10	81	91	85
Religious	29	22	26	20	90	91	90
Residence Hall	23	28	22	26	96	93	94
Socio-Activities	26	22	23	21	88	95	92
Fraternal	28	24	27	24	96	100	98
Total	140	117	126	109	90	93	91

As Table 2 indicates, 90 per cent of the men and 93 per cent of the women in the original sample actually participated in the study. The composite percentage of participation for the sexes was 91. The range in degree of response among groups was from 81 to 96 per cent for males, from 80 to 100 per cent for females, and from 82 to 98 per cent for the total sample. Social-Political Action leaders took part in the study to a lesser degree than any other category of group officers. Since better than 80 per cent of the Social-Political Action leaders did respond to the invitation to participate in the study, with the extent of cooperation varying little between male and female and Conservative and Liberal subjects, the obtained sample seemed to be adequate enough in each category to be termed representative.

Nine leaders drawn in the original sample had withdrawn from school prior to the dates scheduled for testing. Thirteen individuals refused to take part in the study. The majority of the refusals came from males, while all but two fell in the Social-Political Action and Religious categories. Social-Political Action leaders who refused to take the inventories and fill out the personal data forms generally gave the impression of not wanting to be inconvenienced. Refusals from religious leaders were without exception on the grounds that religious dogma forbad the taking of psychological tests.

Though no significant difference between Conservative and Liberal segments of the Social-Political Action category in terms of percentage of participation was apparent, the Conservative leaders required considerably more encouragement to obtain cooperation. Female Conservative leaders proved the most difficult of all. Only 20 per cent responded to the initial invitation, whereas 60 per cent required one or more follow-up telephone calls.

Each subject participating in the investigation completed the *16PF Questionnaire*, the *CUES* and a personal data form. (A copy of this personal data form is presented in Appendix E.) Demographic data for each subject was taken from Indiana University Student Personnel Files and copied onto a mimeographed work-sheet. (A copy of this work-sheet is presented in Appendix F.)

Instrumentation

The Sixteen Personality Factor Questionnaire (*16PF*) (9) was developed by Raymond B. Cattell and Glen F. Stice and was originally published in 1950. It was revised in 1957 and the revised edition, Form A, was used in this investigation.

The *16PF* contains sixteen primary scales plus seven second-order scales. Since factor analytic research was used in the development of this instrument, these scales are considered to be functional unities, i.e., they are independent of one another in that they do not overlap in meaning. (A description of the primary and secondary scales is presented in Appendix G.)

Reliability coefficients (internal consistency coefficients, split-half corrected to full length) reported in the *Handbook for the 16PF* (9:4) range from .71 to .93, with only the I, L, N, Q_1, Q_2, and Q_3 factors having a reliability coefficient of less than .80. Validity coefficients estimated from factor loadings range from .84 to .96, (9:4), with only factors I, L, N, Q_1, Q_2, and Q_3 having validities of less than .90. Factors A, C, E, M, and Q_4 have validities of .94 or better.

There is a paucity of reliability and validity data available for the seven secondary, broad-trait factors of the 16PF. Statistically, the important limitation to reducing the factors obtained through factor analysis to a smaller number of secondary scores is that less of an individual's total behavior can be predicted from the broad factors than from the sixteen primaries (8:48). When the second-order scores are used in conjunction with the primary scores, on the other hand, analysis of broad-traits may add significant data about an individual's personality dynamics.

The 16PF was selected for use in this investigation after consideration of several alternative personality inventories. Several factors were paramount in the selection. First, the 16PF was less obviously "diagnostic" than an instrument such as the MMPI. The investigator felt that items which describe symptoms and complaints commonly associated with rather specific clinical conditions might create undue resistance to cooperation in the study, especially among the more left-wing element of the Social-Political Action leaders. Second, the 16PF was developed to assess a wide range of personality dimensions, providing scores on sixteen primary and seven second-order factors. The broadest possible sampling of personality dimensions was deemed desirable for the present study. Third, research had been conducted with the 16PF to explore the relationship between various types of leadership and personality characteristics. And fourth, considerable effort had been exerted in the testing of and the development of 16PF norms for undergraduate students.

The College and University Environment Scales (CUES) (18) was developed by C. Robert Pace to facilitate understanding of college and university environmental press as perceived by students. This instrument is a device for obtaining a description of the campus environment from those who live in it and are a part of it. It is assumed that what students are aware of, and agree with some unanimity to be true of their particular institution, defines the prevailing campus atmosphere as perceived by students (18:2).

This instrument contains five scales that measure five dimensions along which campus environments may vary. Students respond to statements about different aspects of college life by indicating whether a particular statement is or is not generally characteristic of their college or university as they perceive the institution. (A description of the scales is presented in Appendix H.)

Reliability of CUES scores was estimated by use of the Kuder-Richardson Formula 21 and by Split-halves corrected by the Spearman-Brown formula for the normative sample of 48 colleges and universities (18:48-49). Kuder-Richardson reliability coefficients for the five CUES scales ranged from .81 (Propriety) to .92 (Scholarship), while the split-half reliabilities ranged from .77 (Practicality) to .95 (Scholarship).

Pace (18:63-66) reports validity data for the CUES in terms of Pearson-product moment correlations and contingency coefficients for students from 47 institutions. Each scale was correlated with several variables associated with college and university communities. The technical manual (18) for the CUES should be consulted for specific validity data.

The CUES was selected for use in this investigation because behavior is typically conceived as being determined by the interaction between person and situation, between individual and environment. If this assumption is granted, the characteristics of the stimulus become as important for behavior as the characteristics of the individual (21:35-36). Viewing the college environment as a complex stimulus consisting of numerous forces and conditions which impinge upon the consciousness of students, inclusion of some instrument which attempts to describe major features of this complex stimulus seemed imperative for the present study. The CUES was the logical choice for this purpose because no comparable instrument has been developed which enables the user to describe and to make among group comparisons of individuals in terms of perceived campus environmental characteristics.

Statistical Procedures

Differences among categories of student leaders were tested by three different statistical procedures, depending upon the type of data and number of groups involved. The statistical designs selected for making the among group comparisons were analysis of variance, the Student's "t" test, and the Chi Square test of significance.

Analysis of Variance (2 X 5) was used to test for differences among the five categories of student leaders in terms of each of the 16PF primary and secondary factors, each of the CUES scales, SAT-Verbal score, SAT-Math score, accumulative grade-point-average, and age. (A description of this statistical model is presented in Appendix I.) Use of this model made it possible to determine the presence of significant differences between two or more groups of leaders on a given variable in one operation. Significance of the differences was tested by the "F" ratio, a one-tailed test of significance. The "F" ratio is defined as the Mean Square between groups / the Mean Square within groups (10:369).

Whenever the "F" ratio indicated differences among categories of student leaders significant at the five per cent level of confidence or beyond, Duncan's New Multiple Range Test (6, 7:136-139) was used to ascertain the specific nature of the differences among group means. This procedure enabled the investigator to determine which mean or means differed significantly from other means and which subset or subsets of means differed significantly from other subsets.

The Student's "t" test (10:320-322) was used to test for differences between the "Liberal" and "Conservative" segments of the Social-Political Action group leaders on each of the 16PF factors, each of the CUES scales, and the demographic variables of age, SAT-Verbal score, SAT-Math score, and accumulative grade-point-average.

The Chi Square test of association (10:589-592) was used as the model in analyzing the personal data and all but four of the demographic variables because these data could be grouped in terms of frequencies.

One additional statistical procedure was utilized in this investigation. Intercorrelations among the scales of the 16PF and the CUES were computed, as well as the correlations between the scales of the two inventories and SAT-Verbal scores, SAT-Math scores, and accumulative grade-point-averages.

All statistical treatment of the data was processed by personnel of the Indiana University Computing Center.

CHAPTER III

RESULTS

The results of the investigation are presented in four sections and will be discussed in the following order:

1. Indiana University students who are leaders of social-political action groups are compared with four other categories of elected student leaders on the basis of personality characteristics. The same personality characteristics are used to make comparisons between "Liberal" and "Conservative" social-political action leaders and between male and female leaders of the five group categories.
2. Social-political action leaders are compared with four other categories of student leaders in terms of perceptions of the campus environment and the prevailing environmental press. "Liberal" and "Conservative" leaders and male and female leaders of the five group categories are also compared on the same dimensions.
3. Social-political action leaders are compared with four other categories of student leaders on the basis of selected demographic data. Demographic characteristics are utilized to make comparisons between "Liberal" and "Conservative" social-political action leaders and between male and female leaders across the five group categories.
4. The interrelationships among the instruments used to measure personality characteristics, campus environmental characteristics, and selected demographic characteristics are examined.

Comparisons of Personality Characteristics

Personality characteristics of the group leaders were measured by scales of the Sixteen Personality Factor Questionnaire. Data obtained from these scales were treated statistically by using the analysis of variance technique to test for differences among leaders of: social-political action groups; religious organizations; university residence halls; socio-activity groups; and fraternal groups. Variance ratios were also determined for male and female leaders of the five group categories. Whenever the variance ratio indicated differences among categories of student leaders significant at the five per cent level of confidence or beyond, Duncan's New Multiple Range Test was used to ascertain the specific nature of the differences among group means.

The responses of group leaders to the personality questionnaire were subjected to one additional statistical test. The Student's "t" test was used to test for differences between the "Liberal" and "Conservative" segments of the social-political action group.

Differences among groups of leaders on the 16PF scales. Four primary and two second-order scales of the 16PF did not differentiate significantly among the categories of group leaders or on the basis of sex. These were primary Factors B, H, Q_3, and Q_4. The second-order Factors were the anxiety and neuroticism scales. (Variance ratios for these scales are presented in Appendix J.) (Descriptions of the 16PF scales are presented in Appendix G.)

Table 3 shows the results of the analysis of variance among groups of leaders for Factor A of the 16PF. One variance ratio was significant at the 0.01 per cent level of confidence which indicates that this scale discriminates between male and female group leaders of the five group categories.

TABLE 3. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR A OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	76.021	4	19.005	1.634	NS
Sex	117.767	1	117.767	10.128	0.01
Group X Sex	56.977	4	14.244	1.225	NS
Within groups	2616.315	225	11.628		
Total	2867.080	234			

The mean score on the Factor A scale for female group leaders was 12.478. The mean score for male leaders was 11.049. These results indicate that female leaders tend to be significantly more good natured, cooperative, and attentive to people than do male leaders.

Table 4 presents the differences among groups of leaders for the Factor C scale of the 16PF. Variations among mean scores of the five categories of group leaders were significant at the 0.05 level of confidence.

TABLE 4. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR C OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	145.865	4	36.466	2.446	0.05
Sex	19.959	1	19.959	1.339	NS
Group X Sex	77.956	4	19.489	1.307	NS
Within groups	3354.388	225	14.908		
Total	3598.168	234			

Individuals who score high on the Factor C scale tend to be more emotionally stable and mature. Those who score low on the scale appear to be lacking in frustration tolerance and seem to be changeable in attitudes.

Table 4a presents the results of the application of Duncan's New Multiple Range Test to the mean scores of groups of leaders on the Factor C scale. These results show that social-political action leaders had significantly lower mean scores than leaders of religious and fraternal groups, but these were not significantly different from leaders of residence halls and socio-activity groups. No significant differences were found among leaders of socio-activity groups, residence halls, religious organizations, and fraternal groups.

TABLE 4a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR C OF THE 16PF

		Mean differences					Shortest Significant ranges
		Pol.	Act.	Res.	Relig.	Frat.	
	Means	14.283	15.341	15.688	16.174	16.471	
(1) Political	14.283	------	1.058	1.405	1.891*	2.188*	R_2= 1.566
(4) Activities	15.341		-----	0.347	0.833	1.130	R_3= 1.649
(3) Residence	15.688			-----	0.486	0.783	R_4= 1.705
(2) Religious	16.174				-----	0.297	R_5= 1.745
(5) Fraternal	16.471					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,3,2,5), (1,4,3)

*Significant at the 0.05 level of confidence

Table 5 presents the variance ratios for differences among groups of leaders for the Factor E scale. Significant differences were found among leaders of the five group categories and between male and female leaders.

TABLE 5. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR E OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	331.402	4	82.851	4.720	0.01
Sex	478.318	1	478.318	27.249	0.01
Group X Sex	152.538	4	38.135	2.172	NS
Within groups	3949.534	225	17.553		
Total	4911.792	234			

The mean score for female group leaders on the Factor E scale was 9.465 and the mean score for male leaders was 9.482. These results show that male leaders of the five group categories tend to be significantly more dominant, aggressive, and competitive than female leaders.

Table 5a shows the results of the application of Duncan's New Multiple Range Test when applied to the differences among leaders for Factor E of the 16PF. These results indicate that leaders of religious organizations score significantly lower on this scale than do leaders of other group categories. Religious leaders appear to be more submissive, dependent, and kinder than leaders from other groups. No significant differences were found among leaders of social-political action groups, residence halls, socio-activity groups, and fraternal organizations.

TABLE 5a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR E OF THE 16PF

		Mean differences					Shortest Significant ranges
		Relig.	Res.	Frat.	Activ.	Pol.	
	Means	12.043	14.208	14.451	14.705	15.826	
(2) Religious	12.043	------	2.165*	2.408*	2.662*	3.783*	R_2= 1.807
(3) Residence	14.208		-----	0.243	0.497	1.618	R_3= 1.903
(5) Fraternal	14.451			-----	0.254	1.375	R_4= 1.967
(4) Activities	14.705				-----	1.121	R_5= 2.014
(1) Political	15.826					-----	

There is 1 homogeneous subset of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (3,5,4,1)

*Significant at the 0.05 level of confidence.

Table 6 shows that significant differences exist among the groups of leaders on the Factor F scale. These differences were accepted at the 0.01 per cent level of confidence.

TABLE 6. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR F OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	395.925	4	98.981	6.205	0.01
Sex	0.174	1	0.174	0.011	NS
Group X Sex	141.393	4	35.348	2.216	NS
Within groups	3589.014	225	15.951		
Total	4126.506	234			

Individuals who score high on the Factor F scale tend to be viewed as enthusiastic, talkative, and cheerful. Those who score low appear to be glum, sober, and serious in attitudes.

Table 6a shows that three homogeneous subsets of means appear when Duncan's New Multiple Range Test is applied to the differences among the mean scores of group leaders for the Factor F scale. Leaders of religious organizations scored significantly lower on this scale than did leaders of social-political action groups, fraternal organizations, and residence halls. There were no significant differences between leaders of religious organizations and leaders of socio-activity groups. No significant differences were found on the Factor F scale between leaders of socio-activity groups and social-political action groups, but the leaders of socio-activity groups have significantly lower scores than leaders of fraternal groups and residence halls. A third subset of elements was formed by the mean scores of the leaders of social-political action groups, fraternal organizations, and residence halls. Among these groups no significant differences were found.

TABLE 6a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR F OF THE 16PF

		Mean differences					Shortest Significant ranges
		Relig.	Activ.	Pol.	Frat.	Res.	
	Means	14.587	15.773	16.804	17.961	18.167	
(2) Religious	14.587	------	1.186	2.217*	3.374*	3.580*	R_2= 1.630
(4) Activities	15.773		-----	1.031	2.188*	2.394*	R_3= 1.716
(1) Political	16.804			-----	1.157	1.363	R_4= 1.774
(5) Fraternal	17.961				-----	0.206	R_5= 1.816
(3) Residence	18.167					-----	

There are 3 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (1,5,3), (4,1), (2,4)

*Significant at the 0.05 level of confidence.

Table 7 presents the variance ratios for differences among groups of leaders for the Factor G scale of the 16PF. Persons scoring high on this scale are viewed as being conscientious and persistent. Those who score low seem to be casual and undependable. Significant differences at the 0.01 level of confidence were found among the groups of leaders.

TABLE 7. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR G OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	473.825	4	118.456	9.836	0.01
Sex	6.134	1	6.134	0.509	NS
Group X Sex	79.292	4	19.823	1.646	NS
Within groups	2709.739	225	12.043		
Total	3268.990	234			

Table 7a indicates that social-political action leaders differ significantly from leaders of the other four group categories on the Factor G scale. The mean scores of social-political action leaders were significantly lower than those of other group leaders. The table also shows that socio-activity group leaders score significantly lower on this scale than do leaders of religious organizations, but scores of socio-activity leaders do not differ significantly from leaders of fraternal groups and residence halls. There were no significant differences in mean scores on this scale among the leaders of fraternal organizations, residence halls, and religious groups.

TABLE 7a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR G OF THE 16PF

		Mean differences					Shortest Significant ranges
		Pol.	Activ.	Frat.	Res.	Relig.	
	Means	10.370	13.045	13.255	13.646	14.674	
(1) Political	10.370	------	2.675*	2.885*	3.276*	4.304*	R_2= 1.411
(4) Activities	13.045		-----	0.210	0.601	1.629*	R_3= 1.485
(5) Fraternal	13.255			-----	0.391	1.419	R_4= 1.536
(3) Residence	13.646				-----	1.028	R_5= 1.572
(2) Religious	14.674					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (5,3,2), (4,5,3)

*Significant at the 0.05 level of confidence.

Table 8 shows the results when variance ratios among groups of leaders were determined for the Factor I scale of the 16PF. Significant differences are evident among leaders of the five group categories at the 0.05 level of confidence and between male and female leaders at the 0.01 level of confidence.

TABLE 8. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR I OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	142.438	4	35.609	2.766	0.05
Sex	238.268	1	238.268	18.509	0.01
Group X Sex	10.192	4	2.548	0.198	NS
Within groups	2896.499	225	12.873		
Total	3287.397	234			

Individuals who score high on the Factor I scale are described as being sensitive, dependent, over-protected, and effeminate. Those who score low are viewed as being tough-minded, realistic, and self-reliant. The mean score for female leaders on this scale was 11.880. The mean score for male leaders was 9.848. Female leaders scored significantly higher on the Factor I scale than did male leaders.

The differences among the mean scores of the group leaders of the five group categories are presented in Table 8a. Duncan's New Multiple Range Test was applied to the differences in mean scores.

The results presented in Table 8a show that two homogeneous subsets of means were formed as a result of the statistical test. Fraternal group leaders differed significantly from leaders of social-political action groups on the Factor I scale, but did not differ significantly from leaders of socio-activity groups, residence halls, and religious organizations. The other subset was composed of the mean scores of leaders of socio-activity groups, residence halls, religious organizations, and social-political action groups. No significant differences were found among the means of this subset.

TABLE 8a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR I OF THE 16PF

		Mean differences					Shortest Significant ranges
		Frat.	Activ.	Res.	Relig.	Pol.	
	Means	10.039	10.205	10.375	11.543	11.783	
(5) Fraternal	10.039	------	0.166	0.336	1.504	1.744*	R_2= 1.526
(4) Activities	10.205		-----	0.170	1.338	1.578	R_3= 1.605
(3) Residence	10.375			-----	1.168	1.408	R_4= 1.659
(2) Religious	11.543				-----	0.240	R_5= 1.699
(1) Political	11.783					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,3,2,1), (5,4,3,2)

*Significant at the 0.05 level of confidence.

Variance ratios for differences among groups of leaders for the Factor L scale are shown in Table 9. Significant differences are indicated at the 0.05 per cent level of confidence among leaders of the five group categories, and at the 0.01 per cent level between male and female group leaders.

TABLE 9. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR L OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	112.481	4	28.120	2.569	0.05
Sex	216.854	1	216.854	19.815	0.01
Group X Sex	75.596	4	18.899	1.727	NS
Within groups	2462.385	225	10.944		
Total	2867.316	234			

Persons scoring high on the Factor L scale tend to be suspicious, self-sufficient, and jealous. Individuals who score low on the scale are viewed as accepting, adaptable, and trustful. Male group leaders scored significantly higher on this scale than did female leaders as the mean score for male leaders was 9.191. The mean score for female leaders was 7.252.

Duncan's New Multiple Range Test was applied to the mean scores on the Factor L scale of group leaders of the five group categories. The results of this test are shown in Table 9a.

TABLE 9a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR L OF THE 16PF

		Mean differences					
		Relig.	Res.	Activ.	Frat.	Pol.	Shortest Significant ranges
	Means	7.000	7.875	8.364	8.980	9.130	
(2) Religious	7.000	-----	0.875	1.364	1.980*	2.130*	R_2= 1.403
(3) Residence	7.875		-----	0.489	1.105	1.255	R_3= 1.477
(4) Activities	8.364			-----	0.616	0.766	R_4= 1.527
(5) Fraternal	8.980				-----	0.150	R_5= 1.563
(1) Political	9.130					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (3,4,5,1), (2,3,4)

*Significant at the 0.05 level of confidence.

Two homogeneous subsets of elements were formed as a result of the statistical test. The mean scores of religious organization leaders on the Factor L scale were significantly lower than the mean scores of leaders of fraternal organizations and social-political action groups. The mean scores of leaders of religious groups, however, were not significantly different from mean scores of leaders of residence halls and socio-activity groups. The second subset was formed when no significant differences were found among the mean scores of leaders of residence halls, socio-activity groups, fraternal groups, and social-political action organizations.

Table 10 shows the variance ratios for differences among groups of leaders for Factor M of the 16PF. Significant differences among leaders of the five group categories were accepted at the 0.01 level of confidence.

TABLE 10. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR M OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	353.236	4	88.309	6.548	0.01
Sex	45.186	1	45.186	3.350	NS
Group X Sex	12.800	4	3.200	0.237	NS
Within groups	3034.652	225	13.487		
Total	3445.874	234			

Unconventional, self-absorbed, imaginative, and creative are descriptive terms that characterize individuals who score high on the Factor M scale. Individuals who score low are described as practical, concerned with facts, conventional, and having interests that are narrowed to immediate issues. Differences among leaders of the five group categories after application of Duncan's New Multiple Range Test are shown in Table 10a.

TABLE 10a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR M OF THE 16PF

		Mean differences					Shortest Significant ranges
		Frat.	Res.	Activ.	Relig.	Pol.	
	Means	11.824	12.000	12.477	13.848	14.891	
(5) Fraternity	11.824	------	0.176	0.653	2.024*	3.067*	R_2= 1.483
(3) Residence	12.000		-----	0.477	1.848*	2.891*	R_3= 1.561
(4) Activities	12.477			-----	1.371	2.414*	R_4= 1.614
(2) Religious	13.848				-----	1.043	R_5= 1.653
(1) Political	14.891					-----	

There are 3 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (2,1), (5,3,4), (4,2)

*Significant at the 0.05 level of confidence.

The results of Table 10a show three homogeneous subsets of mean scores for group leaders. One subset is formed from the mean scores of leaders of social-political action groups and leaders of religious organizations. No significant difference was observed between these two groups. A second subset is composed of leaders of fraternal organizations, residence halls, and socio-activity groups and no significant difference was observed among the mean scores of these groups on the Factor M scale. However, the mean scores of fraternal leaders and leaders of residence halls do differ significantly from leaders of social-political action groups and religious organizations. A third subset shows a significant difference in mean scores between socio-activity group leaders and leaders of social-political action groups. There was no significant difference observed between leaders of socio-activity groups and religious organizations.

Variance ratios for differences among groups of leaders for Factor N of the 16PF are presented in Table 11. The ratio indicates that a significant difference exists between male and female leaders of the five group categories.

TABLE 11. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR N OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	44.821	4	11.205	1.394	NS
Sex	41.549	1	41.549	5.169	0.05
Group X Sex	21.744	4	5.436	0.676	NS
Within groups	1808.570	225	8.038		
Total	1916.684	234			

Individuals scoring high on the Factor N scale are described as shrewd, sophisticated, and socially alert. Those who score low on the scale appear to be naive, simple, and unpretentious. Male leaders scored significantly higher on the Factor N scale with a mean score of 11.729 than did female leaders with a mean score of 10.881.

Table 12 shows the variance ratios for differences among groups of leaders for the Factor O scale. Significant differences at the 0.05 per cent level of confidence was observed among leaders of the five group categories.

TABLE 12. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR O OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	151.788	4	37.947	3.076	0.05
Sex	2.529	1	2.529	0.205	NS
Group X Sex	20.428	4	5.107	0.414	NS
Within groups	2775.828	225	12.337		
Total	2950.573	234			

Those who score high on the Factor O scale of the 16PF are perceived as tending to be timid, insecure, and depressed. Those who score low are seen as being confident, adequate, and self-secure.

Table 12a presents the results of the application of Duncan's New Multiple Range Test to the differences in mean scores among leaders of the five group categories on the Factor O scale.

TABLE 12a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR O OF THE 16PF

		Mean differences					Shortest Significant ranges
		Relig.	Pol.	Frat.	Activ.	Res.	
	Means	8.391	8.587	8.627	10.000	10.333	
(2) Religious	8.391	-----	0.196	0.236	1.609*	1.942*	R_2= 1.411
(1) Political	8.587		-----	0.040	1.413	1.746*	R_3= 1.485
(5) Fraternal	8.627			-----	1.373	1.706*	R_4= 1.536
(4) Activities	10.000				-----	0.333	R_5= 1.572
(3) Residence	10.333					-----	

There are 3 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,3), (1,5,4), (2,1,5)

*Significant at the 0.05 level of confidence.

The first subset of group means shows no significant difference between leaders of socio-activity groups and leaders of residence halls. The second subset composed of the mean scores of leaders of social-political action groups, fraternal organizations, and socio-activity groups indicates that no significant difference exists among members of these groups. However, leaders of social-political action groups and fraternal organizations did score significantly lower on the Factor O scale than did leaders of residence halls. No significant differences are indicated among the groups of leaders which compose the third subset of group means, that is, leaders of religious organizations, social-political action groups, and fraternal groups. However, leaders of religious groups did score significantly lower on this scale than did leaders of socio-activity groups and residence halls.

Table 13 indicates the variance ratios for differences among groups of leaders for Factor Q_1 of the 16PF. Significant differences at the 0.01 per cent level of confidence exist among leaders of the five group categories.

TABLE 13. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR Q_1 OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	176.119	4	44.030	5.378	0.01
Sex	23.501	1	23.501	2.871	NS
Group X Sex	35.041	4	8.760	1.070	NS
Within groups	1842.005	225	8.187		
Total	2076.666	234			

The Q_1 scale of the 16PF differentiates between individuals who tend toward radicalism in general personality traits and those who are conservative in temperament. People who score high on this scale tend to be more well-informed, more inclined to experiment with problem solutions, and less inclined to moralize. Those who score low tend to respect established ideas and are tolerant of traditional difficulties.

Table 13a indicates the results of the application of Duncan's New Multiple Range Test to the differences among the group means of leaders for the Factor Q_1 scale. It is apparent that the leaders of social-political action groups scored significantly higher on this scale than did leaders of the other four group categories. No significant differences are observable among mean scores of leaders of residence halls, socio-activity groups, fraternal organizations, and religious groups.

TABLE 13a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR Q_1 OF THE 16PF

		Mean differences					Shortest Significant ranges
		Res.	Activ.	Frat.	Relig.	Pol.	
	Means	9.333	9.659	9.980	10.522	11.935	
(3) Residence	9.333	-----	0.326	0.647	1.189	2.602*	R_2= 1.192
(4) Activities	9.659		-----	0.321	0.863	2.276*	R_3= 1.255
(5) Fraternal	9.980			-----	0.542	1.955*	R_4= 1.297
(2) Religious	10.522				-----	1.413*	R_5= 1.328
(1) Political	11.935					-----	

There is 1 homogeneous subset of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (3,4,5,2)

*Significant at the 0.05 level of confidence.

Table 14 presents the variance ratios among groups of leaders for the Factor Q_2 scale. Significant differences were found among leaders of the five group categories which were significant at the 0.05 level of confidence.

TABLE 14. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR Q_2 OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	169.782	4	42.445	3.078	0.05
Sex	40.806	1	40.806	2.959	NS
Group X Sex	127.888	4	31.972	2.318	NS
Within groups	3103.069	225	13.791		
Total	3441.545	234			

The Factor Q_2 scale is a measure of self-sufficiency versus group dependency. Individuals scoring high on the scale are seen as resourceful and accustomed to making their own decisions. Those scoring low are perceived as being socially dependent.

The application of Duncan's New Multiple Range Test to the mean scores of the leaders of the five group categories on the Factor Q_2 scale is presented in Table 14a. The results of this multiple comparison of mean scores suggests that two homogeneous subsets of mean scores contributed to the significance of the variance ratio among leaders.

The first subset is formed by leaders of fraternal organizations, residence halls, socio-activity groups, and religious organizations. None of these groups differ significantly from each other. However, leaders of fraternal organizations and residence halls scored significantly lower on the Q_2 scale than did leaders of social-political action groups. A second subset shows no significant differences among leaders of socio-activity groups, religious organizations, and social-political action groups.

TABLE 14a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR FACTOR Q_2 OF THE 16PF

		Mean differences					Shortest Significant ranges
		Frat.	Res.	Activ.	Relig.	Pol.	
	Means	8.882	9.292	10.227	10.326	11.000	
(5) Fraternal	8.882	-----	0.410	1.345	1.444	2.118*	R_2= 1.525
(3) Residence	9.292		-----	0.935	1.034	1.708*	R_3= 1.605
(4) Activities	10.227			-----	0.099	0.773	R_4= 1.659
(2) Religious	10.326				-----	0.674	R_5= 1.699
(1) Political	11.000					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (5,3,4,2), (4,2,1)

*Significant at the 0.05 level of confidence.

Variance ratios for differences among groups of leaders for the second-order Introversion-Extraversion Factor of the 16PF are presented in Table 15. Differences among leaders of the five group categories are significant at the 0.01 per cent level of confidence.

TABLE 15. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER INTROVERSION-EXTRAVERSION FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	6381.685	4	1595.421	3.634	0.01
Sex	1.711	1	1.711	0.004	NS
Group X Sex	3122.994	4	780.749	1.778	NS
Within groups	98780.927	225	439.026		
Total	108287.317	234			

Persons scoring low on the introversion-extraversion scale are described as introverted or shy. Those scoring high on the scale are seen as out-going or uninhibited.

Table 15a presents the results of the application of Duncan's New Multiple Range Test to the differences among the mean scores of group leaders for the introversion-extraversion scale. These results show that leaders of religious groups score significantly lower on this scale than leaders of the other four group categories. No significant differences were observed among leaders of socio-activity groups, social-political action groups, residence halls, and fraternal organizations.

TABLE 15a. *DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE SECOND-ORDER INTROVERSION-EXTRAVERSION FACTOR OF THE 16PF*

		Mean differences					Shortest Significant ranges
		Relig.	Activ.	Pol.	Res.	Frat.	
	Means	54.674	65.227	67.000	69.021	69.725	
(2) Religious	54.674	------	10.553*	12.326*	14.347*	15.051*	R_2= 8.510
(4) Activities	65.227		------	1.773	3.794	4.498	R_3= 8.958
(1) Political	67.000			-----	2.021	2.725	R_4= 9.262
(3) Residence	69.021				-----	0.704	R_5= 9.483
(5) Fraternal	69.725					-----	

There is 1 homogeneous subset of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,1,3,5)

*Significant at the 0.05 level of confidence.

Table 16 presents the variance ratios obtained for the differences among groups of leaders for the second-order Responsive Emotionality Factor. The F ratio for group variance was significant at the 0.01 per cent level of confidence.

TABLE 16. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER RESPONSIVE EMOTIONALITY FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	5754.404	4	1438.601	4.222	0.01
Sex	936.561	1	936.561	2.748	NS
Group X Sex	324.073	4	81.018	0.238	NS
Within groups	76670.357	225	340.757		
Total	83685.395	234			

Low scores on the Responsive Emotionality Factor indicates that individuals tend to be emotional and subject to depression. Those who score high on this scale tend to be imperturbable, decisive, and enterprising.

Table 16a presents the results of the application of Duncan's New Multiple Range Test to the differences among mean scores of leaders of the five group categories on the Responsive Emotionality Factor scale. These results show that while leaders of religious organizations and of social-political action groups do not differ significantly on this scale, leaders of these two groups do score significantly lower on the Responsive Emotionality scale than do leaders from the other three group categories. No significant differences in mean scores were observed for leaders of socio-activity groups, residence halls, and fraternal organizations.

TABLE 16a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE SECOND-ORDER RESPONSIVE EMOTIONALITY FACTOR OF THE 16PF

		Mean differences					Shortest Significant ranges
		Relig.	Pol.	Activ.	Res.	Frat.	
	Means	47.609	48.630	57.250	58.958	59.667	
(2) Religious	47.609	------	1.021	9.641*	11.349*	12.058*	R_2= 7.443
(1) Political	48.630		-----	8.620*	10.328*	11.037*	R_3= 7.835
(4) Activities	57.250			-----	1.708	2.417	R_4= 8.101
(3) Residence	58.958				-----	0.709	R_5= 8.294
(5) Fraternal	59.667					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,3,5), (2,1)

*Significant at the 0.05 level of confidence.

Variance ratios for differences among groups of leaders for the second-order Dependency Factor of the 16PF are shown in Table 17. Significant differences among leaders of the five group categories were indicated at the 0.01 per cent level of confidence.

TABLE 17. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER DEPENDENCY FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	13807.490	4	3451.873	8.975	0.01
Sex	564.654	1	564.654	1.468	NS
Group X Sex	1680.427	4	420.107	1.092	NS
Within groups	86538.986	225	384.618		
Total	102591.557	234			

The Dependence Factor indicates whether an individual is group-dependent or is self-directing and aggressive. Individuals who score low are seen as being passive and dependent upon groups. Those who score high are perceived as self-directing and aggressive.

The results of the application of Duncan's New Multiple Range Test to the differences in mean scores of group leaders on the Dependency Factor scale are presented in Table 17a. These results show that leaders of social-political action groups scored significantly higher on this scale than did leaders of any of the other four group categories. No significant differences were found among leaders of residence halls, fraternal organizations, religious groups, and socio-activity groups.

TABLE 17a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE SECOND-ORDER DEPENDENCY FACTOR OF THE 16PF

		Mean differences					Shortest Significant ranges
		Res.	Frat.	Relig.	Activ.	Pol.	
	Means	55.875	56.020	58.630	60.114	75.543	
(3) Residence	55.875	------	0.145	2.755	4.239	19.668*	R_2= 7.942
(5) Fraternal	56.020		-----	2.610	4.094	19.523*	R_3= 8.360
(2) Religious	58.630			-----	1.484	16.913*	R_4= 8.644
(4) Activities	60.114				-----	15.429*	R_5= 8.850
(1) Political	75.543					------	

There is 1 homogeneous subset of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (3,5,2,4)

*Significant at the 0.05 level of confidence.

Table 18 presents the variance ratios for differences among groups of leaders for the second-order Leadership Factor scale. Significant differences exist among leaders of the five group categories on this scale at the 0.05 level of confidence.

TABLE 18. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER LEADERSHIP FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	3831.420	4	957.855	2.574	0.05
Sex	111.803	1	111.803	0.300	NS
Group X Sex	1340.618	4	335.154	0.901	NS
Within groups	83742.092	225	372.187		
Total	89025.933	234			

The Leadership Factor of the 16PF indicates whether or not individuals would commonly be elected to leadership positions in face-to-face groups. Individuals with low scores would not naturally tend to come to leadership positions while those with high scores would tend to be elected to such positions.

Table 18a shows the results of the application of Duncan's New Multiple Range Test to the mean scores of group leaders on the Leadership Factor scale. Two homogeneous subsets of mean scores were formed as a result of this statistical test. One subset is composed of the mean scores of leaders of religious organizations, socio-activity groups, residence halls, and fraternal organizations. No significant differences were found among the mean scores of these leaders. A second subset shows that leaders of social-political action groups differ significantly from leaders of residence halls and fraternal organizations. Social-political action group leaders do not differ significantly from leaders of religious groups and socio-activity groups.

TABLE 18a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE SECOND-ORDER LEADERSHIP FACTOR OF THE 16PF

		Mean differences					Shortest Significant range
		Pol.	Relig.	Activ.	Res.	Frat.	
	Means	56.957	61.978	62.023	64.938	68.549	
(1) Political	56.957	------	5.021	5.066	7.981*	11.592*	R_2= 7.784
(2) Religious	61.978		-----	0.045	2.960	6.571	R_3= 8.194
(4) Activities	62.023			-----	2.915	6.526	R_4= 8.472
(3) Residence	64.938				-----	3.611	R_5= 8.674
(5) Fraternal	68.549					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (2,4,3,5), (1,2,4)

*Significant at the 0.05 level of confidence.

Variance ratios for differences among groups of leaders on the second-order Creativity Factor of the 16PF are shown in Table 19. Significant differences exist among leaders of the five group categories at the 0.01 level of confidence.

TABLE 19. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER CREATIVITY FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	16513.524	4	4128.381	8.498	0.01
Sex	141.886	1	141.886	0.292	NS
Group X Sex	2277.041	4	569.260	1.172	NS
Within groups	109311.836	225	485.830		
Total	128244.287	234			

The Creativity Factor is designed to differentiate among individuals who are inventive and creative in areas where they have ability and training, and those who are not creative. Low scores on this scale indicate a lack of creative ability; high scores indicate the opposite.

The results of the treatment of group mean scores by applying Duncan's New Multiple Range Test to the data obtained from the responses to the Creativity scale is presented in Table 19a. These results indicate that leaders of fraternal groups and leaders of residence halls differ significantly from leaders of socio-activity groups, religious organizations, and social-political action groups on this Factor. The mean scores of fraternal group leaders and residence hall leaders were significantly lower than mean scores of leaders of the other three group categories. A second subset was formed by the mean scores of socio-activity group leaders which differ significantly from those of social-political action leaders, but do not vary significantly from leaders of religious organizations. No significant difference was found between leaders of religious organizations and social-political action group leaders.

TABLE 19a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE SECOND-ORDER CREATIVITY FACTOR OF THE 16PF

		Mean differences					Shortest Significant ranges
		Frat.	Res.	Activ.	Relig.	Pol.	
	Means	52.824	53.396	63.318	68.913	72.978	
(5) Fraternal	52.824	------	0.572	10.494*	16.089*	20.154*	R_2= 8.909
(3) Residence	53.396		-----	9.922*	15.517*	19.582*	R_3= 9.378
(4) Activities	63.318			-----	5.595	9.660*	R_4= 9.654
(2) Religious	68.913				-----	4.065	R_5= 9.928
(1) Political	72.978					-----	

There are 3 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (5,3), (4,2), (2,1)

*Significant at the 0.05 level of confidence.

Table 20 presents the differences between "Conservative" and "Liberal" social-political action leaders in terms of their mean scores on the primary factors of the 16PF. Significant differences exist between these two categories of leaders on six of the scales.

TABLE 20. DIFFERENCES BETWEEN CONSERVATIVE AND LIBERAL SOCIAL-POLITICAL ACTION LEADERS AT INDIANA UNIVERSITY ON THE PRIMARY FACTORS OF THE 16PF

Factor	$\bar{X}_C$	$\bar{X}_L$	$D_{\bar{X}}$	SD_C	SD_L	t	P
A	11.913	10.565	1.348	3.437	3.369	1.343	NS
B	9.652	10.130	0.478	1.229	1.359	1.252	NS
C	14.304	14.261	0.043	2.867	3.756	0.044	NS
E	16.478	15.174	1.304	4.252	4.648	0.993	NS
F	18.652	14.957	3.695	3.761	3.983	3.235	0.01
G	11.739	9.000	2.739	3.347	3.425	2.743	0.01
H	15.000	15.522	0.522	5.027	5.451	0.337	NS
I	10.043	13.522	3.509	3.418	3.058	3.637	0.01
L	9.783	8.478	1.305	3.411	3.941	1.200	NS
M	13.826	15.957	2.131	3.713	3.983	1.876	NS
N	12.348	9.696	2.652	2.886	3.066	3.021	0.01
O	9.783	7.391	2.392	3.464	3.327	2.388	0.05
Q_1	11.000	12.870	1.870	3.631	2.322	2.080	0.05
Q_2	10.087	11.913	1.826	3.919	3.965	1.571	NS
Q_3	10.174	8.957	1.217	1.825	2.771	1.490	NS
Q_4	14.000	11.217	2.783	4.843	5.526	1.816	NS

The results of Table 20 indicate that "Conservative" social-political action leaders score significantly higher on the Factor F scale. "Conservative" leaders, therefore, would tend to be more enthusiastic, talkative, and cheerful than "Liberal" leaders who would tend to be glum, sober, and serious in attitudes.

The mean scores on the Factor G scale indicates that "Conservative" leaders appear to be more conscientious, persevering, and responsible in attitudes than "Liberal" leaders. "Liberal" leaders are seen as being more casual and undependable.

"Conservative" leaders have a significantly lower mean score on the Factor I scale than do "Liberal" leaders. This indicates that "Conservative" leaders of social-political action groups tend to be more tough-minded, realistic, and self-reliant. "Liberal" leaders are perceived as being sensitive, dependent, over-protected, and effeminate in attitudes.

A significantly higher mean score on the Factor N scale by leaders of the "Conservative" group of social-political action leaders indicates that these students tend to be shrewd, sophisticated, and socially alert. "Liberal" leaders tend to be more forthright and unpretentious.

Individuals who score high on the Factor O scale are seen as being more timid, insecure, and depressed than those who score low. "Conservative" leaders scored significantly higher on the Factor O scale than leaders of the "Liberal" category.

Mean scores on the Factor Q_1 scale indicate that "Conservative" leaders of social-political action groups are conservative in their general personality traits. "Liberal" leaders tend toward radicalism in temperament. "Conservative" leaders, then, are seen to respect established ideas and are tolerant of traditional difficulties. "Liberal" leaders appear to be more well-informed, more inclined to experiment with problem solutions, and less inclined to moralize.

Table 21 presents the differences between "Conservative" and "Liberal" social-political action leaders on the second-order factors of the 16PF. Significant differences between mean scores of these two groups occur on three scales.

TABLE 21. DIFFERENCES BETWEEN CONSERVATIVE AND LIBERAL SOCIAL-POLITICAL ACTION LEADERS AT INDIANA UNIVERSITY ON THE SECOND-ORDER FACTORS OF THE 16PF

Factor	$\bar{X}_C$	$\bar{X}_L$	$D_{\bar{X}}$	SD_C	SD_L	t	P
Anxiety	57.783	49.000	8.783	17.425	22.103	1.496	NS
Ex.-Intro.	72.696	61.304	11.392	21.941	21.001	1.799	NS
Respons.-Emotion.	57.652	39.609	18.043	16.894	16.439	3.671	0.01
Dependency	69.130	81.957	12.827	18.462	17.536	2.416	0.05
Neurotic	47.304	52.391	5.087	18.499	21.865	0.852	NS
Leadership	61.478	52.435	9.043	18.080	23.240	1.473	NS
Creativity	60.478	85.478	25.000	18.921	18.715	4.505	0.01

The results of Table 21 show a significantly higher mean score on the Responsive Emotionality scale for "Conservative" social-political action leaders. This indicates that these individuals tend toward having enterprising, decisive, imperturbable personalities. "Liberal" leaders tend to be more emotionally sensitive, to be guided by emotions, and liable to more frustration and depression.

The mean score of "Liberal" leaders is significantly higher than "Conservative" leaders on the Dependency scale. Such results suggest that "Liberal" social-political action leaders are more aggressive, independent, and self-directing than "Conservative" leaders. "Conservative" leaders can be described as having group-dependent, agreeable, passive personalities.

"Liberal" leaders scored significantly higher on the Creativity scale than "Conservative" leaders. This indicates that "Liberal" leaders tend to be more creative in those areas where they possess ability and training than do "Conservative" leaders.

Comparisons of Perceptions of the Campus Environment

Perceptions of the campus environment of Indiana University and the prevailing environmental press by leaders of the five group categories compared during this investigation were measured by the College and University Environment Scales. (Descriptions of the CUES scales are presented in Appendix H.) The results presented in this section indicate the variances among group leaders of social-political action groups; religious organizations; university residence halls; socio-activity groups and fraternal groups. Variance ratios were also determined for male and female leaders of the five groups. Differences in mean scores between "Liberal" and "Conservative" segments of the social-political action group were also determined.

Differences among groups of leaders on the CUES scales. Table 22 presents the variance ratios for differences among groups of leaders for the CUES Practicality scale. Significant differences among leaders of the five group categories exist at the 0.01 per cent level of confidence.

TABLE 22. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE CUES PRACTICALITY SCALE

Source of variation	Sum of squares	df	Mean square	F	P
Group	264.775	4	66.194	6.893	0.01
Sex	1.754	1	1.754	0.183	NS
Group X Sex	1.679	4	0.420	0.044	NS
Within groups	2160.593	225	9.603		
Total	2428.801	234			

The Practicality scale measures the practical, instrumental emphasis in a college environment. High scores by individuals indicate a preference for procedures, personal status, and practical benefits. Order and supervision are characteristic of the administration and of classwork.

Table 22a shows the results of the application of Duncan's New Multiple Range Test to the mean scores of group leaders on the Practicality scale. Three homogeneous subsets of means were formed as a result of this statistical test. One subset is composed of leaders of religious organizations and social-political action groups. No significant difference was found between the mean scores of these two groups. The mean score of religious leaders, however, was significantly lower than the scores of leaders of residence halls, socio-activity groups and fraternal organizations. A second subset was formed by the mean scores of leaders of social-political action groups, residence halls, and socio-activity groups. While no significant differences were observed among these groups, leaders of social-political action groups and residence halls scored significantly lower on the Practicality scale than did leaders of fraternal organizations. The third subset indicates that the mean scores of leaders of socio-activity groups and fraternal organizations are not significantly different.

TABLE 22a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE CUES PRACTICALITY SCALE

		Mean differences					Shortest Significant ranges
		Relig.	Pol.	Res.	Activ.	Frat.	
	Means	17.174	18.022	18.854	19.091	20.314	
(2) Religious	17.174	------	0.848	1.680*	1.917*	3.140*	R_2= 1.239
(1) Political	18.022		-----	0.832	1.069	2.292*	R_3= 1.304
(3) Residence	18.854			-----	0.237	1.460*	R_4= 1.349
(4) Activities	19.091				-----	1.223	R_5= 1.381
(5) Fraternal	20.314					-----	

There are 3 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (2,1), (1,3,4), (4,5)

*Significant at the 0.05 level of confidence.

Table 23 shows the variance ratios for differences among groups of leaders for the Community scale of the CUES. Significant differences are evident among leaders of the five group categories and between male and female leaders.

TABLE 23. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE CUES COMMUNITY SCALE

Source of variation	Sum of squares	df	Mean square	F	P
Group	526.898	4	131.725	8.978	0.01
Sex	106.134	1	106.134	7.234	0.01
Group X Sex	104.581	4	26.145	1.782	NS
Within groups	3301.062	225	14.671		
Total	4038.675	234			

High scores on the Community scale reflect a perceived campus environmental emphasis on the general welfare of students. The atmosphere of the campus is seen as being friendly, cohesive, and where the relationships of students, faculty, and administration are those of mutual assistance.

The mean score of female leaders was significantly higher than for male leaders. The mean score for females was 16.707 and the mean score for males was 15.350.

Table 23a presents the application of Duncan's New Multiple Range Test to the differences among leaders for the Community scale of the CUES. These results indicate that social-political action group leaders scored significantly lower on this scale than leaders of the other four groups. Leaders of religious organizations scored significantly lower than leaders of residence halls. Mean scores of religious leaders were not significantly different from leaders of socio-activity groups and fraternal organizations, and residence halls.

TABLE 23a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE CUES COMMUNITY SCALE

		Mean differences					Shortest Significant ranges
		Pol.	Relig.	Activ.	Frat.	Res.	
	Means	13.261	15.587	16.432	17.196	17.667	
(1) Political	13.261	------	2.326*	3.171*	3.935*	4.406*	R_2= 1.580
(2) Religious	15.587		-----	0.845	1.609	2.080*	R_3= 1.663
(4) Activities	16.432			-----	0.764	1.235	R_4= 1.720
(5) Fraternal	17.196				-----	0.471	R_5= 1.761
(3) Residence	17.667					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,5,3), (2,4,5)

*Significant at the 0.05 level of confidence.

Table 24 presents the variance ratios for differences among groups of leaders for the Awareness scale of the CUES. Significant differences are apparent among leaders of the five group categories and among male and female leaders of these groups.

TABLE 24. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE CUES AWARENESS SCALE

Source of variation	Sum of squares	df	Mean square	F	P
Group	804.247	4	201.061	12.423	0.01
Sex	161.664	1	161.664	9.989	0.01
Group X Sex	32.438	4	8.109	0.501	NS
Within groups	3641.404	225	16.184		
Total	4639.753	234			

Students who score high on the Awareness scale tend to perceive the college environment as reflecting a concern for and emphasis upon self-understanding, reflectiveness, and world-wide perspective. A campus perceived in this fashion would be expected to emphasize an awareness of self, society, and esthetic stimuli.

Females scored significantly higher than males on the Awareness scale. The mean score for female leaders was 22.605. Male leaders had a mean score of 20.931.

Table 24a shows the results of the application of Duncan's New Multiple Range Test to the differences among leaders for the Awareness scale. It is apparent that the mean score of social-political action leaders is significantly lower than mean scores of any of the other four categories of groups. Leaders of socio-activity groups scored significantly lower on the scale than leaders of residence halls. No significant differences were observed among the mean scores of leaders of socio-activity groups, religious organizations, and fraternal groups. No significant differences were observed among leaders of religious organizations, fraternal groups, and residence halls.

TABLE 24a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE CUES AWARENESS SCALE

		Mean differences					Shortest Significant ranges
		Pol.	Activ.	Relig.	Frat.	Res.	
	Means	18.130	21.682	22.435	22.824	23.563	
(1) Political	18.130	------	3.552*	4.305*	4.694*	5.433*	R_2= 1.652
(4) Activities	21.682		-----	0.753	1.142	1.881*	R_3= 1.739
(2) Religious	22.435			-----	0.389	1.128	R_4= 1.798
(5) Fraternal	22.824				-----	0.739	R_5= 1.841
(3) Residence	23.563					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (2,5,3), (4,2,5)

*Significant at the 0.05 level of confidence.

Variance ratios for differences among groups of leaders for the CUES Propriety scale are shown in Table 25. Male and female leaders of the five group categories differ significantly on this scale at the 0.05 per cent level of confidence.

TABLE 25. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE CUES PROPRIETY SCALE

Source of variation	Sum of squares	df	Mean square	F	P
Group	25.001	4	6.250	0.415	NS
Sex	70.110	1	70.110	4.659	0.05
Group X Sex	63.511	4	15.878	1.055	NS
Within groups	3386.144	225	15.049		
Total	3544.766	234			

High scores on the Propriety scale indicate that a campus is perceived as conventional and conservative. Such a campus could be described as lacking rebellious, assertive, and risk-taking students.

Female leaders had a mean score of 11.730 on the Propriety scale of the CUES. Male leaders had a mean score of 10.628. These means differ significantly.

Table 26 presents the F ratios for differences among groups of leaders for the Scholarship scale of the CUES. Significant differences are observed among the five categories of group leaders, and between male and female leaders.

TABLE 26. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE CUES SCHOLARSHIP SCALE

Source of variation	Sum of squares	df	Mean square	F	P
Group	507.170	4	126.793	4.829	0.01
Sex	254.436	1	254.436	9.690	0.01
Group X Sex	76.326	4	19.081	0.727	NS
Within groups	5907.797	225	26.257		
Total	6745.729	234			

The Scholarship scale measures the degree to which a campus environment is perceived as providing a scholarly, academic atmosphere. A high score on this scale indicates that the campus emphasizes competitively high academic achievement and a serious interest in scholarship.

Male and female leaders differ significantly on this scale. Female leaders scored significantly higher than males with a mean score of 16.069. The mean score for male leaders was 13.971.

Table 26a shows the results of the application of Duncan's New Multiple Range Test to the differences among leaders for the Scholarship scale. A comparison of the mean scores of social-political action leaders and leaders of socio-activity groups reveals no significant difference. Leaders of social-political action groups did score significantly lower on this scale than leaders of fraternal organizations, religious groups, and residence halls. No significant differences were observed among leaders of socio-activity groups, fraternal organizations, religious groups, and residence halls.

TABLE 26a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR THE CUES SCHOLARSHIP SCALE

		Mean differences					Shortest Significant ranges
		Pol.	Activ.	Frat.	Relig.	Res.	
	Means	12.283	14.386	15.667	15.891	16.563	
(1) Political	12.283	------	2.103	3.384*	3.608*	4.280*	R_2= 2.107
(4) Activities	14.386		-----	1.281	1.505	2.177	R_3= 2.218
(5) Fraternal	15.667			-----	0.224	0.896	R_4= 2.293
(2) Religious	15.891				-----	0.672	R_5= 2.348
(3) Residence	16.563					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (4,5,2,3), (1,4)

*Significant at the 0.05 level of confidence.

Table 27 presents the differences in mean scores between "Conservative" and "Liberal" leaders of the social-political action group on the scales of the CUES. Significant differences are observed on three of the five scales.

TABLE 27. DIFFERENCES BETWEEN CONSERVATIVE AND LIBERAL SOCIAL-POLITICAL ACTION LEADERS AT INDIANA UNIVERSITY ON THE SCALES OF THE CUES

Scale	$\bar{X}_C$	$\bar{X}_L$	$D_{\bar{X}}$	SD_C	SD_L	t	P
practical	18.261	17.783	0.478	3.250	3.477	0.482	NS
Community	14.957	11.565	3.392	3.240	3.259	3.539	0.01
Awareness	19.565	16.696	2.869	3.788	4.847	2.237	0.05
Propriety	9.391	11.913	2.522	3.714	3.741	2.294	0.05
Scholar	12.870	11.696	1.174	5.303	5.716	0.722	NS

"Conservative" leaders scored significantly higher on the Community scale than did "Liberal" leaders of social-political action groups. This indicates that "Conservative" leaders tend to perceive the Indiana University campus environment as more friendly, cohesive, and group-oriented than do "Liberal" leaders.

"Conservative" leaders also scored significantly higher on the Awareness scale than did "Liberal" leaders. The Indiana University environment and prevailing environmental press would tend to be perceived by "Conservative" leaders as emphasizing awareness of self, society, and esthetic stimuli.

"Liberal" social-political action leaders scored significantly higher than "Conservative" leaders on the Propriety scale. This indicates that this group of leaders perceives the campus environment as one where there is an absence of demonstrative, assertive, rebellious, and risk-taking behavior.

Comparisons of Demographic Data

Demographic data were collected from personal data forms completed by group leaders and from the student personnel files of Indiana University. (Copies of these forms are presented in Appendix E and Appendix F.) The results presented in this section indicate the variance ratios for differences among leaders of five group categories and between male and female leaders when the data was such that this statistical procedure could be employed. Differences in mean scores between "Liberal" and "Conservative" leaders were tested by means of the Student's "t" test. The Chi Square test of significance was applied to other types of demographic variables since these data resulted in classified frequencies. In some instances, expected cell entries were less than five and certain categories were combined to increase the expected cell frequencies so the Chi Square test could be made.

Following the application of the Chi Square test of significance, it was observed that several variables showed no significant differences between observed and expected frequencies among the categories of student leaders. These variables were: father's educational level, sex, perceived long-term benefit from group leadership experience, participation in groups other than leadership groups, birth order, first elected office, mother's occupation, and father's occupation. (Chi Square tables for these variables are presented in Appendix K.)

Differences among groups of leaders for demographic data. Table 28 shows the F ratios for differences among groups of leaders for chronological age. Significant differences exist among group leaders at the 0.05 per cent level of confidence.

TABLE 28. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR CHRONOLOGICAL AGE

Source of variation	Sum of squares	df	Mean square	F	P
Group	29.791	4	7.448	2.528	0.05
Sex	11.297	1	11.297	3.834	NS
Group X Sex	6.564	4	1.641	0.557	NS
Within groups	662.937	225	2.946		
Total	710.589	234			

The results of the application of Duncan's New Multiple Range Test to the differences among leaders in chronological age are presented in Table 28a. These results show that leaders of residence halls are significantly younger in age than leaders of religious organizations, socio-activity groups, and social-political action groups. There were no significant differences in ages of leaders of residence halls and fraternal organizations. There were no significant differences in ages of leaders of fraternal groups, religious organizations, socio-activity groups, and social-political action groups.

TABLE 28a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR CHRONOLOGICAL AGE

		Mean differences					Shortest Significant ranges
		Res.	Frat.	Relig.	Activ.	Pol.	
	Means	19.917	20.412	20.652	20.909	20.935	
(3) Residence	19.917	------	0.495	0.735*	0.992*	1.018*	R_2= 0.696
(5) Fraternal	20.412		-----	0.240	0.497	0.523	R_3= 0.732
(2) Religious	20.652			-----	0.257	0.283	R_4= 0.757
(4) Activities	20.909				-----	0.026	R_5= 0.775
(1) Political	20.935					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (5,2,4,1), (3,5)

*Significant at the 0.05 level of confidence.

Table 29 presents variance ratios for differences among leaders for the verbal score of the Scholastic Aptitude Test (SAT.) Differences were significant at the 0.05 per cent level of confidence among leaders of the five group categories.

TABLE 29. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR SCHOLASTIC APTITUDE TEST VERBAL SCORE

Source of variation	Sum of squares	df	Mean square	F	P
Group	9544.704	4	2386.176	2.977	0.05
Sex	1580.891	1	1580.891	1.973	NS
Group X Sex	2047.984	4	511.997	0.639	NS
Within groups	180319.087	225	801.418		
Total	193492.666	234			

The SAT is used as a criterion for admission to Indiana University. The verbal scale indicates the potential aptitude of students to comprehend and use verbal types of information in academic classes.

Table 29a shows the results of the application of Duncan's New Multiple Range Test to the differences among leaders for performance on the verbal scale of the SAT. These results indicate that leaders of residence halls score significantly lower on this scale than do leaders of religious organizations and social-political action groups. There were no significant differences observed among leaders of residence halls, fraternal organizations, and socio-activity groups. Leaders of fraternal organizations, socio-activity groups, religious organizations, and social-political action groups were not significantly different in mean scores on the verbal scale.

TABLE 29a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR SCHOLASTIC APTITUDE TEST VERBAL SCORE

		Mean differences					Shortest Significant ranges
		Res.	Frat.	Act.	Relig.	Pol.	
	Means	521.650	546.370	550.090	560.200	580.570	
(3) Residence	521.650	-------	24.720	28.440	38.550*	58.920*	R_2= 36.150
(5) Fraternal	546.370		------	3.720	13.830	34.200	R_3= 38.054
(4) Activities	550.090			-----	10.110	30.480	R_4= 39.345
(2) Religious	560.200				------	20.370	R_5= 40.284
(1) Political	580.570					------	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (5,4,2,1), (3,5,4)

*Significant at the 0.05 level of confidence.

Variance ratios for differences among groups of leaders on the mathematics scale of the SAT are presented in Table 30. A significant difference between male and female leaders was indicated.

TABLE 30. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR SCHOLASTIC APTITUDE TEST MATHEMATICS SCORE

Source of variation	Sum of squares	df	Mean square	F	P
Group	1711.445	4	427.861	0.677	NS
Sex	8287.561	1	8287.561	13.107	0.01
Group X Sex	2795.640	4	698.910	1.105	NS
Within groups	142265.045	225	632.289		
Total	155059.691	234			

The mean score for female leaders of the five groups on the mathematics scale was 520.813. The mean score for male leaders was 558.720. This indicates that male leaders tend to have significantly more aptitude in the use of mathematics.

Table 31 shows variance ratios for differences among groups of leaders for cumulative grade point average. Significant differences exist among leaders of the five group categories at the 0.05 per cent level of confidence.

TABLE 31. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR CUMULATIVE GRADE POINT AVERAGE

Source of variation	Sum of squares	df	Mean square	F	P
Group	294.138	4	73.535	2.643	0.05
Sex	90.950	1	90.950	3.268	NS
Group X Sex	48.933	4	12.233	0.440	NS
Within groups	6260.940	225	27.826		
Total	6694.961	234			

Table 31a presents the results of the application of Duncan's New Multiple Range Test to the differences among leaders for cumulative grade point average. These results indicate that the mean cumulative grade point average of leaders of residence halls was significantly lower than for leaders of religious organizations. Differences in mean grade point averages were not significant among leaders of residence halls, social-political action groups, fraternal groups, and socio-activity organizations. No significant differences in mean grade point averages were found among leaders of religious organizations, social-political action groups, fraternal organizations, and socio-activity groups.

TABLE 31a. DUNCAN'S NEW MULTIPLE RANGE TEST APPLIED TO THE DIFFERENCES AMONG LEADERS FOR CUMULATIVE GRADE POINT AVERAGE

		Mean differences					Shortest Significant ranges
		Res.	Pol.	Frat.	Act.	Relig.	
	Means	2.687	2.796	2.838	2.904	3.006	
(3) Residence	2.687	-----	0.109	0.151	0.217	0.319*	R_2= 0.219
(1) Political	2.796		-----	0.042	0.108	0.210	R_3= 0.231
(5) Fraternal	2.838			-----	0.066	0.168	R_4= 0.238
(4) Activities	2.904				-----	0.102	R_5= 0.244
(2) Religious	3.006					-----	

There are 2 homogeneous subsets of elements, no pair of which differ by more than the shortest significant range for a subset of that size: (1,5,4,2), (3,1,5,4)

*Significant at the 0.05 level of confidence.

Differences between "Conservative" and "Liberal" social-political action leaders for selected demographic variables are shown in Table 32. One of the four variables shows a significant difference at the 0.01 per cent level of confidence.

TABLE 32. DIFFERENCES BETWEEN CONSERVATIVE AND LIBERAL SOCIAL-POLITICAL ACTION LEADERS AT INDIANA UNIVERSITY ON SELECTED DEMOGRAPHIC VARIABLES

Variable	$\bar{X}_C$	$\bar{X}_L$	$D_{\bar{X}}$	SD_C	SD_L	t	P
Age	20.739	21.130	0.391	1.514	2.418	0.658	NS
SAT-V	532.043	629.087	97.044	105.080	67.924	4.845	0.01
SAT-M	528.130	562.391	34.261	73.314	72.779	1.591	NS
GPA	2.676	2.916	0.240	0.525	0.602	1.441	NS

The results of Table 32 indicate that "Liberal" leaders of the social-political action group score significantly higher on the verbal scale of the SAT than do "Conservative" leaders. Apparently, "Liberal" leaders have significantly more aptitude for comprehending materials of a verbal nature.

Table 33 indicates that leaders of the five group categories differ significantly in terms of their home states. The Chi Square test shows these differences to be significant at the 0.01 per cent level of confidence.

According to the results of Table 33, leaders of residence halls and fraternal organizations tend to be from the state of Indiana more often than would be expected. There were fewer leaders from Indiana in social-political action groups, religious organizations, and socio-activity groups than expected.

Religious organization and socio-activity leaders were observed to list their home states as being in the Middle West to a greater extent than would be predicted. Leaders from other group categories listed the Middle West less often than would be expected.

Social-political action leaders gave their home states as being in the Eastern, Southern, and Western parts of the United States more often than would be expected. Leaders from other group categories listed these areas of the United States less often than would be predicted.

TABLE 33. DIFFERENCES AMONG LEADERS IN TERMS OF HOME STATE

Home State	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Indiana	29	33.3	28	33.3	43	34.7	31	31.8	39	36.9	170
Middle West	4	7.4	13	7.4	5	7.8	8	7.1	8	8.3	38
Eastern, Southern & Western U.S.#	13	5.3	5	5.3	-	5.5	5	5.1	4	5.8	27
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 27.73*
*Significant at the 0.01 level of confidence.
#The Western and Southern U.S. row was combined with the Eastern U.S. category because the Western and Southern expected frequencies were extremely low.

Differences among leaders in terms of their class standings are presented in Table 34. These differences were observed to be significant at the 0.01 level of confidence.

The results of Table 34 indicate that freshmen and sophomores are represented among the leaders of religious organizations and residence halls to a greater extent than would be predicted. The reverse was observed for the other group categories.

Junior leaders were observed to be represented more frequently than expected in socio-activity groups and fraternal organizations. There were fewer junior leaders than expected in social-political action groups, religious organizations, and residence halls.

Social-political action groups, religious organizations, and socic-activity groups had more leaders who were seniors and graduate students than would be predicted for these groups. Other group categories had fewer leaders of these class standings than would be expected.

TABLE 34. DIFFERENCES AMONG LEADERS IN TERMS OF CLASS STANDINGS

Class Standing	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Freshman-Sophomore	11	13.5	18	13.5	26	14.1	5	12.9	9	15.0	69
Junior	16	18.0	12	18.0	14	18.8	18	17.2	32	20.0	92
Senior-Graduate#	19	14.5	16	14.5	8	15.1	21	13.9	10	16.0	74
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 40.88*
*Significant at the 0.01 level of confidence.
#The senior and graduate rows were combined because the expected graduate student frequencies were low.

Table 35 indicates the differences among group leaders on the basis of their major subjects. The Chi Square test of significance shows that differences exist that are significant at the 0.01 level of confidence.

The results of this table show that fraternal organizations had a higher observed representation of leaders majoring in business than would be expected. Other group categories showed that fewer leaders were majoring in business than was expected.

Religious organizations, residence halls, and socio-activity groups had more leaders majoring in science than would be predicted for these groups. Social-political action groups and fraternal organizations had fewer leaders majoring in science than would be expected.

Social science was listed by leaders of social-political action groups as their major area more frequently than would be predicted. The opposite was observed for the other group categories.

Social-political action groups, fraternal organizations, and socio-activity groups had fewer leaders than expected to report humanities as their major area of study. Leaders of religious organizations and residence halls reported this area of concentration more frequently than would be predicted.

Leaders of religious organizations and fraternal groups gave fine arts as their major subject more frequently than was predicted. Other group leaders listed this area of study less frequently than predicted.

TABLE 35. DIFFERENCES AMONG LEADERS IN TERMS OF MAJOR SUBJECTS

Major	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Business	5	7.4	4	7.4	7	7.8	7	7.1	15	8.3	38
Science	2	8.2	11	8.2	11	8.6	12	7.9	6	9.1	42
Social Science	28	14.9	11	14.9	11	15.5	12	14.2	14	16.5	76
Humanities	7	10.0	13	10.0	14	10.4	9	9.6	8	11.0	51
Fine Arts	4	5.5	7	5.5	5	5.7	4	5.2	8	6.1	28
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 16
Chi Square: 37.92*
*Significant at the 0.01 level of confidence.

Table 36 presents differences among leaders of the five group categories in terms of their marital status. The Chi Square test shows significant differences for this variable at the 0.01 per cent level of confidence.

The results of Table 36 show that leaders of social-political action groups were observed to be married more often than would be predicted. The opposite was observed for leaders of other group categories.

TABLE 36. DIFFERENCES AMONG LEADERS IN TERMS OF MARITAL STATUS

Marital Status	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Married	8	1.8	1	1.8	-	1.8	-	1.7	-	1.9	9
Single#	38	44.2	45	44.2	48	46.2	44	42.3	51	49.1	226
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 4
Chi Square: 29.00*
*Significant at the 0.01 level of confidence. However, the expected frequencies in the married category are extremely low.
#The "divorced" category was dropped because there were no observed frequencies.

Differences among group leaders in terms of fraternity-sorority membership are shown in Table 37. These differences are significant at the 0.01 level of confidence.

Table 37 shows that fewer leaders than expected of social-political action groups, religious organizations, and residence halls were members of fraternities and sororities at Indiana University. Socio-activity groups had more members than would be predicted for this group category.

TABLE 37. DIFFERENCES AMONG LEADERS IN TERMS OF FRATERNITY-SORORITY MEMBERSHIP

Fraternal Membership	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Member	9	18.2	7	18.2	3	19.0	23	17.4	51	20.2	93
Non-member	37	27.8	39	27.8	45	29.0	21	26.6	-	30.8	142
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 4
Chi Square: 122.24*
*Significant at the 0.01 level of confidence.

Table 38 presents the differences among leaders of the five group categories in terms of student housing. These differences were observed to be significant at the 0.01 level of confidence.

The results of Table 38 indicate that more leaders than expected of religious organizations and residence halls live in university operated housing. Leaders of other groups indicated this category of housing less frequently than would be predicted.

Private housing was listed as the place of residence more frequently than would be expected by leaders of social-political action groups and religious organizations. Leaders of other groups listed this category of housing less frequently than would be predicted.

Leaders of fraternal organizations and socio-activity groups responded that their place of residence was fraternal housing more frequently than would be expected. Leaders of other group categories responded less frequently to this housing category than expected.

TABLE 38. DIFFERENCES AMONG LEADERS IN TERMS OF TYPE OF STUDENT HOUSING

Type of Student Housing	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
University Operated#	18	22.7	32	22.7	48	23.7	17	21.7	1	25.2	116
Private Housing	20	7.0	9	7.0	-	7.4	7	6.8	-	7.8	36
Fraternal	8	16.3	5	16.3	-	16.9	20	15.5	50	18.0	83
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 180.48*
*Significant at the 0.01 level of confidence.
#The married student housing and residence hall categories were combined because of extremely low expected married student frequencies.

The differences in preferences for political parties among leaders is shown in Table 39. The results show significant differences at the 0.05 per cent level of confidence.

Social-political action leaders were observed to prefer both the Democratic and Republican parties less frequently than would be predicted. Leaders of this group responded more frequently than would be expected that their political preferences were with some other party or political organization.

Leaders of religious organizations and residence halls preferred the Democratic party more often than would be expected. Leaders of socio-activity groups, residence halls, and fraternal organizations preferred the Republican party more frequently than would be expected of leaders of these groups.

With the exception of leaders of social-political action groups, leaders of other group categories were observed to have preferences for political parties other than the major parties less frequently than would be predicted.

TABLE 39. DIFFERENCES AMONG LEADERS IN TERMS OF POLITICAL PREFERENCES

Political Preference	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Democratic	14	15.3	19	15.3	16	15.9	13	14.6	16	16.9	78
Republican	15	22.3	19	22.3	25	23.3	24	21.3	31	24.8	114
Other	17	8.4	8	8.4	7	8.8	7	8.1	4	9.3	43
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 18.49*
*Significant at the 0.05 level of confidence.

Differences among leaders of the five group categories on the basis of religious preferences are reported in Table 40. These differences were significant at the 0.01 level of confidence.

Leaders of religious organizations reported preferences for some sect of the Protestant faith to a greater extent than would be expected. Leaders of other groups were observed to list this category less frequently than would be predicted.

Leaders of two groups, social-political action and religious, preferred the Roman Catholic or Jewish faiths less often than would be expected. Leaders of other groups were observed to prefer these categories more often than would be predicted.

Leaders of social-political action groups and socio-activity groups stated no religious preference more often than would be expected. The opposite was observed for leaders of the other groups.

TABLE 40. DIFFERENCES AMONG LEADERS IN TERMS OF RELIGIOUS PREFERENCES

Religion	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Protestant	29	32.7	41	32.7	32	34.1	29	31.3	36	36.2	167
Roman Catholic or Jewish[1]	3	8.2	5	8.2	12	8.6	10	7.9	12	9.1	42
None[2]	14	5.1	-	5.1	4	5.3	5	4.8	3	5.7	26
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 32.51*
*Significant at the 0.01 level of confidence.

[1] The Jewish category was combined with the Roman Catholic category because the expected Jewish frequencies were extremely low.

[2] The "Other" category was dropped because the total observed frequency was zero.

The number of years of educational attainment by mothers of group leaders was found to differ significantly among the groups. These results are presented in Table 41.

Leaders of social-political action groups and of socio-activity groups reported fewer mothers than expected who had twelve or less years of formal education. The reverse was observed among leaders of other groups.

Mothers with 13-15 years of schooling were reported less frequently than would be predicted by leaders of social-political action groups, religious organizations, and residence halls. Leaders of socio-activity groups and fraternal groups stated that their mothers had 13-15 years of education more often than would be expected.

Mothers of leaders of social-political action groups more often than predicted had completed sixteen years or more of education. Leaders of other groups reported having mothers in this category less frequently than would be expected.

TABLE 41. DIFFERENCES AMONG LEADERS IN TERMS OF EDUCATIONAL LEVELS OF MOTHERS

Years of school completed	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
12 or less#	16	23.9	27	23.9	29	24.9	21	22.8	29	26.5	122
13-15 years	7	9.2	7	9.2	8	9.6	11	8.8	14	10.2	47
16 or more	23	12.9	12	12.9	11	13.5	12	12.4	8	14.3	66
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 18.54*
*Significant at the 0.01 level of confidence.
#The 11 years or less row was combined with the high school graduate row because the expected frequencies for the 11 years or less row were extremely small.

Table 42 indicates the differences among group leaders in terms of their work experiences. These results are significant at the 0.05 level of confidence.

The results of Table 42 show that fewer leaders than expected of the social-political action and fraternal categories reported part or full-time work experiences. The reverse was observed for leaders of other groups.

More frequently than predicted, leaders of social-political action groups, socio-activity groups, and fraternal organizations stated that their work experience was confined to summer work only. Leaders of other groups reported the opposite more frequently than predicted.

Leaders of social-political action groups and residence halls indicated more frequently than would be expected that they had no work experience. Other leaders were observed to report no work experience less frequently than would be expected.

TABLE 42. DIFFERENCES AMONG LEADERS IN TERMS OF WORK EXPERIENCES

Type of Employment	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Part-time or Full-time#	8	15.1	21	15.1	17	15.7	15	14.4	16	16.7	77
Summer Only	21	20.2	20	20.2	16	21.0	22	19.3	24	22.3	103
Never Employed	17	10.7	5	10.7	15	11.3	7	10.3	11	12.0	55
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 16.64*
*Significant at the 0.05 level of confidence.
#The full-time row was combined with the part-time category because of extremely low expected full-time frequencies.

Table 43 shows differences among group leaders in terms of when they first became interested in the type of groups of which they are now leaders. The differences are significant at the 0.01 level of confidence.

The results show that leaders of religious groups and socio-activity organizations state more frequently than would be predicted that they first became interested in the type of organizations of which they are leaders during the first six grades of school. Frequencies in this category were observed less often than predicted for leaders of the other three groups.

Origination of interest in similar organizations during grades 7-9 was reported by leaders of religious organizations and residence halls more often than would be expected. Other leaders had fewer frequencies than predicted in this category.

Social-political action leaders, leaders of religious organizations, and fraternal leaders in greater numbers than expected indicated that their first interest in similar groups began in high school. The opposite was observed for leaders of other groups.

More frequently than expected, leaders of social-political action groups, socio-activity groups, and fraternal organizations indicated that their first interest in similar groups began during college undergraduate years. Leaders of religious groups and residence halls made this response less frequently than would be predicted.

TABLE 43. DIFFERENCES AMONG LEADERS IN TERMS OF FIRST INTEREST IN TYPE OF GROUP OF WHICH NOW A LEADER

Grade level of first interest	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Grades 1-6	2	4.9	10	4.9	4	5.1	7	4.7	2	5.4	25
Grades 7-9	7	8.6	13	8.6	13	9.0	6	8.2	5	9.6	44
Grades 10-12	16	12.9	14	12.9	11	13.5	10	12.4	15	14.3	66
Grades 13-16	21	19.6	9	19.6	20	20.4	21	18.7	29	21.7	100
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 28.01*
*Significant at the 0.01 level of confidence.

Differences in the number of elected leadership positions held in the past by leaders of the five groups studied during this investigation are shown in Table 44. Differences were found to be significant at the 0.01 level of confidence.

More often than predicted, leaders of social-political action groups and fraternal organizations stated that they had held 0-5 leadership positions in the past. Leaders of religious groups, residence halls, and socio-activity groups reported this category less frequently than would be expected.

Leaders of social-political action groups, socio-activity organizations, and fraternal groups were observed to report 6-10 leadership positions less frequently than would be expected. Other group leaders indicated that they had held 6-10 positions in the past more often than would be predicted for their groups.

The number of social-political action leaders and religious leaders who reported that they had held eleven or more leadership positions was less than predicted for these groups. The opposite was observed for leaders of other groups.

TABLE 44. DIFFERENCES AMONG LEADERS IN TERMS OF NUMBER OF ELECTED LEADERSHIP POSITIONS HELD IN THE PAST

Number of elected positions	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
0-5 positions	27	21.3	21	21.3	19	22.3	15	20.4	27	23.7	109
6-10 positions	17	17.8	23	17.8	20	18.6	16	17.0	15	19.8	91
11 or more	2	6.9	2	6.9	9	7.1	13	6.6	9	7.5	35
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 20.70*
*Significant at the 0.01 level of confidence.
#The 11-15 and 16 or more categories were combined because they both had low expected frequencies.

The results of Table 45 show the differences among group leaders on the basis of parental attitudes toward present leadership roles. These differences are significant at the 0.01 level of confidence.

According to the results of this table, leaders of social-political action groups and socio-activity groups reported a smaller number of parents than expected who were pleased with their roles. Leaders of religious organizations, residence halls, and fraternal groups indicated a larger number of parents were pleased with their roles than would be expected for this category.

TABLE 45. DIFFERENCES AMONG LEADERS IN TERMS OF PARENTAL ATTITUDE TOWARD PRESENT GROUP LEADERSHIP ROLES

Parental attitude	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Pleased	30	38.2	41	38.2	43	39.8	36	36.5	45	42.3	195
No concern or unhappy#	16	7.8	5	7.8	5	8.2	8	7.5	6	8.7	40
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 4

Chi Square: 14.02*

*Significant at the 0.01 level of confidence.

#The no concern and unhappy categories were combined because of very low expected unhappy frequencies.

Table 46 presents the differences among leaders of the five groups in terms of the amount of family participation in groups similar to those in which these students currently serve as officers. The differences are significant at the 0.01 level of confidence.

Leaders of social-political action groups, more often than would be expected, reported no familial participation. Less often than would be expected, these leaders reported fathers, mothers, and siblings participating in similar groups.

Leaders of religious organizations reported that their fathers and mothers participated in similar organizations in greater numbers than would be predicted. Siblings and no participation was reported less frequently than expected.

Leaders of residence halls and fraternal organizations reported similar results. Leaders of these groups were observed to state less often than expected that their fathers and mothers participated in similar groups. They indicated more often than would be predicted that siblings participated in similar groups or that there was no familial participation.

Fathers of leaders of socio-activity groups were reported more frequently than would be expected as participants in similar groups. The response of no familial participation was observed more frequently than would be predicted for this category of leaders. Less mother and sibling participation in similar groups was indicated by leaders of socio-activity groups than would be expected.

TABLE 46. DIFFERENCES AMONG LEADERS IN TERMS OF FAMILY PARTICIPATION IN THE TYPE OF GROUP OF WHICH PRESENTLY A LEADER

Familial participant	Pol.		Relig.		Rec.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Father	9	10.2	17	0.2	9	10.6	10	9.7	7	11.3	52
Mother	7	7.6	16	7.6	6	8.0	5	7.3	5	8.5	39
Sibling	11	12.3	12	2.3	13	12.9	10	11.8	17	13.7	63
None	19	15.9	1	5.9	20	16.5	19	15.2	22	17.5	81
Total	46	46	46	6	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 37.02*
*Significant at the 0.01 level of confidence.

The differences among group leaders in terms of the individuals who have most influenced them to become members of the groups which they lead are shown in Table 47. Differences are significant at the 0.01 level of confidence.

Leaders of religious groups stated in greater numbers than would be expected that parents or teachers had been most influential in them becoming interested in the groups of which they are leaders. Other leaders reported this category less frequently than would be predicted.

Leaders of residence halls, socio-activity groups, and fraternal organizations listed that classmates had been the chief influence more frequently than would be predicted. Other leaders of groups indicated the opposite.

Leaders of religious organizations and social-political action groups indicated that various other people had been influential to a greater degree than would be expected. Leaders of the three other groups reported the opposite.

TABLE 47. DIFFERENCES AMONG LEADERS IN TERMS OF CHIEF INFLUENCE IN THE DIRECTION OF PRESENT GROUP MEMBERSHIP AND LEADERSHIP.

Chief influence	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Parent or Teacher#	9	10.0	20	10.0	5	10.4	8	9.5	9	11.1	51
Classmate	20	26.2	16	26.2	35	27.4	29	25.1	34	29.1	134
Other	17	9.8	10	9.8	8	10.2	7	9.4	8	10.8	50
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 29.78*
*Significant at the 0.01 level of confidence.
#The parent and teacher categories were combined because the expected teacher frequencies were extremely low.

Differences among leaders on the basis of length of membership in the organizations of which they are leaders are presented in Table 48. Differences among leaders are significant at the 0.01 level of confidence.

The results indicated in Table 48 show that a greater number than would be predicted for leaders of residence halls have less than six months of membership in the organizations of which they are leaders. Leaders of the other groups indicate fewer responses than would be expected for this category.

In greater numbers than would be predicted, leaders of social-political action groups, religious organizations, and residence halls report one year of membership in their organizations. The opposite is shown for leaders of other groups.

Leaders of social-political action groups, religious organizations, and fraternal groups, more frequently than would be predicted, report they have held membership in their organizations for two years. Leaders of residence halls and socio-activity groups indicate membership of two years less frequently than would be predicted.

Leaders of social-political action groups, religious organizations, and residence halls indicated less frequently than would be predicted that they had held membership in their organizations for three or more years. The opposite was observed for leaders of other groups.

TABLE 48. DIFFERENCES AMONG LEADERS IN TERMS OF LENGTH OF MEMBERSHIP IN ORGANIZATION OF WHICH NOW A LEADER

Length of membership	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Less than six months	5	5.3	4	5.3	17	5.5	1	5.1	-	5.8	27
One year	15	13.5	14	13.5	17	14.1	11	12.9	12	15.0	69
Two years	16	14.7	20	14.7	7	15.3	12	14.0	20	16.3	75
Three years or more	10	12.5	8	12.5	7	13.1	20	12.0	19	13.9	64
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 54.94*
*Significant at the 0.01 level of confidence.

Table 49 shows the differences among leaders in terms of the hours per week they spend performing group leadership functions. Differences were significant at the 0.01 level of confidence.

The results of Table 49 indicate that leaders of social-political action groups and religious organizations spend 0-3 hours per week in leadership functions more frequently than would be predicted. Other group leaders indicated this category less frequently than would be expected.

Leaders of residence halls reported they spent 4-7 hours per week in leadership functions more frequently than would be expected. Leaders of the four other groups reported this category less frequently than expected.

More frequently than predicted, leaders of social-political action groups, socio-activity groups, and fraternal organizations responded that they spent 8-11 hours per week in leadership activities. Leaders of religious groups and residence halls indicated the opposite.

Fraternal and socio-activity group leaders listed that they spend 12 or more hours per week in leadership functions to a greater degree than would be predicted for these groups. The reverse was indicated by leaders of other groups.

TABLE 49. DIFFERENCES AMONG LEADERS IN TERMS OF HOURS PER WEEK SPENT PERFORMING GROUP LEADERSHIP FUNCTIONS

Hours per week	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
0-3 hours	19	15.5	26	15.5	16	16.1	12	14.8	6	17.1	79
4-7 hours	15	16.4	16	16.4	23	17.2	13	15.8	17	18.2	84
8-11 hours	7	6.7	3	6.7	4	6.9	9	6.3	11	7.4	34
12 or more	5	7.4	1	7.4	5	7.8	10	7.1	17	8.3	38
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 42.40*
*Significant at the 0.01 level of confidence.

The differences among leaders in terms of the proportion of their social life that centers around the groups of which they are elected officers are shown in Table 50. These differences are significant at the 0.01 level of confidence.

Fraternal leaders responded less frequently than predicted that 0-25 per cent of their social life centered around the group of which they are officers. Group leaders of other categories reported this percentage more frequently than expected.

Socio-activity leaders indicated they spent 26-50 per cent of their social life at Indiana University in the groups where they have leadership roles more often than would be predicted for this category. Leaders of other groups indicated the opposite.

Leaders of religious organizations, residence halls, and fraternal groups stated, more frequently than would be predicted, that 51-75 per cent of their social life centered around the groups for which they are leaders. The opposite was indicated by leaders of other groups.

Fraternal leaders responded, more often than expected, that 76-100 per cent of their social life focused on the groups of which they are leaders. All other categories of group leaders reported this category less frequently than was expected.

TABLE 50. DIFFERENCES AMONG LEADERS IN TERMS OF PROPORTION OF SOCIAL LIFE CENTERING AROUND THE GROUP OF WHICH AN ELECTED OFFICER

Proportion	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
0-25 per cent	20	17.6	19	17.6	22	18.4	22	16.9	7	19.5	90
26-50 per cent	11	11.2	9	11.2	10	11.6	15	10.7	12	12.3	57
51-75 per cent	12	12.1	14	12.1	14	12.7	5	11.6	17	13.5	62
76-100 per cent	3	5.1	4	5.1	2	5.3	2	4.8	15	5.7	26
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 38.66*
*Significant at the 0.01 level of confidence.

Table 51 presents the differences among leaders on the basis of their chief perceived reasons for election to positions of group leadership. Differences were significant at the 0.01 level of confidence.

Leadership ability was reported less frequently than expected as the reason for election to positions of group leadership by leaders of social-political action groups, religious organizations, and residence halls. Leaders of fraternal groups and socio-activity groups reported this category more frequently than would be predicted for these groups.

Fraternal leaders listed interest in the area as the reason for their election less often than would be expected for this group. Leaders of other group categories mentioned this category more frequently than would be predicted.

Leaders of social-political action groups and religious organizations reported, to a greater degree than would be predicted, that the reason for their election was due to knowledge of the group background and goals. Leaders of other groups had fewer responses in this category than would be predicted.

To a greater extent than would be expected, leaders of religious groups and residence halls indicated that their elections were due to pleasant personalities. Leaders of the other group categories indicated the opposite.

TABLE 51. DIFFERENCES AMONG LEADERS IN TERMS OF CHIEF PERCEIVED REASON FOR ELECTION TO A POSITION OF GROUP LEADERSHIP

Reason for election	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Leadership Ability	7	14.9	10	14.9	14	15.5	16	14.2	29	16.5	76
Interest in area	20	16.2	17	16.2	18	17.0	18	15.6	10	18.0	83
Knowledge of group background and goals	16	9.2	11	9.2	6	9.6	6	8.8	8	10.2	47
Pleasant personality	3	5.7	8	5.7	10	5.9	4	5.4	4	6.3	29
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 34.86*
*Significant at the 0.01 level of confidence.

Differences among leaders of the five group categories on the basis of their perceived chief goal for their groups are presented in Table 52. Differences are significant at the 0.01 level of confidence.

Leaders of religious organizations, residence halls, and socio-activity groups reported that service was their chief group goal more frequently than would be expected for these groups. The reverse was observed for leaders of fraternal groups. The observed and the expected responses were the same for leaders of social-political action groups for this category.

Leaders of socio-activity groups and fraternal organizations listed the chief goals of their groups as recreational to a greater extent than would be predicted. Other leaders responded less frequently to this category than would be expected.

Personal development was given more often than expected as the chief goals of religious and fraternal groups. Other group leaders indicated the opposite.

More often than would be predicted, leaders of social-political action groups listed improvement of society as the chief goal of their groups. No leaders of other group categories responded to this item.

TABLE 52. DIFFERENCES AMONG LEADERS IN TERMS OF PERCEIVED CHIEF GROUP GOALS

Group goals	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Service	20	20.0	23	20.0	29	20.8	20	19.1	10	22.1	102
Recreation	-	6.4	-	6.4	5	6.8	15	6.2	13	7.2	33
Personal Development	4	15.3	23	15.3	14	15.9	9	14.6	28	16.9	78
Social (improved society)	22	4.3	-	4.3	-	4.5	-	4.1	-	4.8	22
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 153.33*
*Significant at the 0.01 level of confidence.

Table 53 presents the differences among group leaders in terms of their chief satisfactions in present leadership roles. Differences are significant at the 0.01 level of confidence.

The improvement of society was listed more frequently than would be expected by leaders of social-political action groups. Leaders of other group categories indicated this reason less often than would be predicted as their chief source of satisfaction.

Leaders of residence halls and socio-activity groups responded more often than would be predicted that their chief source of satisfaction from leadership roles was recreational in nature. Leaders of other group categories indicated the opposite.

Fraternal leaders reported that personal development was the chief satisfaction gained from leadership roles to a greater extent than would be predicted for this group. Leaders of other group categories indicated that personal development was a source of major satisfaction less frequently than would be expected.

Leaders of religious organizations and residence halls listed service as the chief satisfaction from being leaders to a greater degree than would be predicted for these categories of leaders. Leaders of other groups gave this reason less frequently than would be predicted.

TABLE 53. DIFFERENCES AMONG LEADERS IN TERMS OF CHIEF SATISFACTION IN PRESENT GROUP LEADERSHIP ROLES

Chief satisfaction	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Social (improved society)	26	5.9	4	5.9	-	6.1	-	5.6	-	6.5	30
Recreational	-	8.8	3	8.8	14	9.2	21	8.4	7	9.8	45
Personal Development	2	10.4	10	10.4	6	10.8	7	9.9	28	11.5	53
Service	18	20.9	29	20.9	28	21.9	16	20.1	16	23.2	107
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 164.29*
*Significant at the 0.01 level of confidence.

Interrelationships of Instruments and Selected Demographic Variables

Correlation coefficients were developed among the various scales and selected demographic variables used in this investigation. These correlations were reviewed for the purpose of identifying those relationships which differed significantly from zero.

Relationship of 16PF and CUES. Table 54 presents the correlation coefficients among the five scales of the College and University Environment Scales and the twenty-three primary and second-order scales of the Sixteen Personality Factor Questionnaire. Within this table of correlations, any correlational value that exceeded the value of 0.160 was considered significantly different from zero at the 0.01 level of confidence.

The results of Table 54 show that the relationship between scores achieved by group leaders on the Practicality scale of the CUES and scores on the F, the Extraversion-Introversion, and the Responsive Emotionality scales of the 16PF tended to be significantly different from zero in a positive direction. Scores on the Practicality scale tended to be negatively related to scores on the I, Q_1, Q_2, and Creativity scales of the 16PF.

Scores on the Community scale of the CUES and the A, C, F, G, N, Q_3, and the Extraversion-Introversion scales of the 16PF tended to be related in a positive direction that was significantly different from zero. A negative relationship that is significantly different from zero is observed between the Community scale and the L, M, Q_2, Dependency, Neuroticism, and Creativity scales of the 16PF.

The scores of group leaders on the Awareness scale and the A, G, and Leadership scales were related in a positive direction that is significantly different from zero. The Awareness scale of the CUES and the Factor E, L, M, Q_1, Dependency, and Creativity scales of the 16PF were related in a negative direction that is significantly different from zero.

TABLE 54. CORRELATIONS AMONG THE 16PF FACTORS AND THE CUES SCALES

	PRAC.	COMM.	AWAR.	PROP.	SCHOL.
A	0.095	0.228*	0.228*	0.018	0.125
B	-0.013	-0.059	-0.087	-0.075	-0.050
C	0.098	0.237*	0.152	0.173*	0.117
E	0.134	-0.082	-0.184*	-0.138	-0.198*
F	0.256*	0.232*	0.143	-0.017	0.026
G	-0.011	0.287*	0.333*	0.191*	0.335*
H	0.132	0.115	-0.036	0.075	-0.083
I	-0.180*	0.002	-0.028	0.079	-0.001
L	0.136	-0.162*	-0.173*	-0.268*	-0.157
M	-0.048	-0.199*	-0.188*	-0.114	-0.251*
N	0.049	0.160*	0.061	0.114	0.178*
O	0.090	0.092	0.070	-0.183*	0.014
Q_1	-0.168*	-0.140	-0.186*	-0.002	-0.102
Q_2	-0.245*	-0.245*	-0.105	0.065	-0.091
Q_3	0.033	0.254*	0.144	0.194*	0.196*
Q_4	0.081	-0.016	-0.073	-0.207*	-0.063
ANXIETY	0.038	-0.119	-0.091	-0.267*	-0.097
EX.-IN.	0.243*	0.207*	0.050	-0.005	-0.032
RE. EMO.	0.187*	0.157	0.120	0.055	0.136
DEPEN.	-0.131	-0.289*	-0.291*	-0.064	-0.257*
NEUROT.	-0.106	-0.168*	-0.155	-0.156	-0.103
LEAD.	0.129	0.289*	0.213*	0.211*	0.198*
CREAT.	-0.237*	-0.286*	-0.251*	-0.010	-0.182*

*$r > 0.160$ is significantly greater than zero at the 0.01 level of confidence.

A positive relationship, significantly different from zero, was observed in Table 54 between the Propriety scale of the *CUES* and the Factor C, G, Q_3, and Leadership scales of the *16PF*. The Propriety scale and Factors L, O, Q_4, and Anxiety were significantly related in a negative direction.

The relationship of the perception of group leaders of scholarship within the Indiana University environment tended to be positively correlated with scores on the G, N, Q_3, and Leadership scales of the *16PF*. The Scholarship scale of the *CUES* was negatively correlated with the E, M, Dependency, and Creativity scales of the *16PF*.

Relationship of 16PF and selected demographic variables. The correlation coefficients among the scales of the *16PF*, *SAT*-Verbal scale, *SAT*-Mathematics scale, and cumulative grade point averages of leaders of the five group categories are presented in Table 55. Correlational values had to exceed 0.160 to be considered significantly different from zero at the 0.01 level of confidence.

The results of Table 55 show that the *SAT*-Verbal scale and the Factor B, I, M, Q_1, Q_2, Dependency, and Creativity scales of the *16PF* were related in a positive direction that was significantly different from zero. The *SAT*-Verbal scores and the G, N, Q_3, Responsive Emotionality, and Leadership scales were negatively related.

The *SAT*-Mathematics scores of group leaders were related to only one scale of the *16PF* to the extent that the correlational value was significantly different from zero; the Factor B scale. These scales were related in a positive direction.

A positive relationship was observed between the cumulative grade point averages of group leaders and the Factor B, I, and Creativity scales of the *16PF*. The Responsive Emotionality scale of the *16PF* and the cumulative grade point averages of group leaders were negatively related.

TABLE 55. CORRELATIONS AMONG THE 16PF FACTORS AND SELECTED DEMOGRAPHIC VARIABLES

	SAT-VERBAL	SAT-MATH.	GPA
A	-0.068	-0.064	-0.047
B	0.295*	0.259*	0.273*
C	-0.124	0.024	-0.079
E	0.079	0.043	-0.108
F	-0.141	-0.086	-0.155
G	-0.223*	-0.058	0.006
H	-0.053	-0.082	-0.095
I	0.288*	-0.093	0.168*
L	0.007	0.024	-0.076
M	0.352*	0.122	0.140
N	-0.197*	-0.054	-0.132
O	-0.106	-0.097	-0.065
Q_1	0.258*	0.061	0.045
Q_2	0.283*	0.049	0.045
Q_3	-0.185*	-0.069	0.022
Q_4	0.066	0.005	-0.019
ANXIETY	0.061	-0.005	-0.018
EX.-IN.	-0.108	-0.108	-0.133
RE. EMO.	-0.280*	-0.088	-0.174*
DEPEND.	0.388*	0.055	0.043
NEUROT.	0.105	0.016	0.069
LEAD.	-0.209*	-0.062	-0.070
CREAT.	0.424*	0.123	0.203*

*r > 0.160 is significantly greater than zero at the 0.01 level of confidence.

Table 56 presents the correlations among the CUES scales and selected demographic variables. Correlational values had to exceed 0.160 to be considered significantly different from zero at the 0.01 level of confidence.

TABLE 56. CORRELATIONS AMONG THE CUES SCALES AND SELECTED DEMOGRAPHIC VARIABLES

	SAT-VERBAL	SAT-MATH.	GPA
PRACTICALITY	-0.131	-0.069	-0.107
COMMUNITY	-0.204*	-0.175*	-0.090
AWARENESS	-0.155	-0.154	-0.100
PROPRIETY	-0.073	-0.112	0.058
SCHOLARSHIP	-0.163*	-0.134	-0.023

*r > 0.160 is significantly greater than zero at the 0.01 level of confidence.

The results shown in Table 56 indicate that the SAT-Verbal scale and the Community and Scholarship scales of the CUES are related in a negative direction that is significantly different from zero. The SAT-Mathematics scale is also negatively related to the Community scale of the CUES. No significant differences among correlational coefficients were observed when cumulative grade point averages of group leaders and CUES scales were compared.

Discussion

Personality characteristics of leaders of social-political action groups. Mean scores made by leaders of social-political action groups differed significantly from those made by leaders of groups with which they were compared on fifteen of the twenty-three primary and second-order factors of the 16PF. They differed from leaders of all other groups on three scales. Their mean scores on other scales differed significantly from those of leaders of one, two, and occasionally, three other group categories.

The mean scores of social-political action leaders were significantly different from those of leaders of all comparative groups on the Factor G, Q_1, and Dependency scales. This suggests, in popular terminology, that leaders of social-political action groups have less rigid moral standards, are less conscientious, and are more undependable in behavior. They tend toward a radicalism in personality traits which is reflected in preferences for being well-informed, by inclinations toward experimenting with problem situations, and by being less inclined to moralize. They also differ from leaders of groups with which they were compared in this study by being more aggressive, self-directing, and independent in behavior.

Mean scores on the Factor M, Responsive Emotionality, and Creativity scales made by leaders of social-political action groups were similar to those of leaders of religious organizations, but differed significantly from leaders of fraternal groups, residence halls, and socio-activity groups. Social-political action leaders tend to be more imaginative, self-absorbed, and concerned with internal mental affairs. They are more unconventional, more guided by their emotions, and liable to more frustration and anxiety than leaders of the three groups mentioned above. Aside from religious leaders, social-political action officers also seem to be more creative than other leaders in those areas where they have training and abilities.

Mean scores of leaders of social-political action groups, while not differing significantly from leaders of three group categories, did differ significantly from those of leaders of religious organizations on the Factor E, F, L, and Introversion-Extraversion scales. Social-political action leaders appear to be more aggressive, assertive, and competitive than leaders of religious groups. They are more enthusiastic, talkative, and cheerful. They seem to be less inhibited than religious leaders, but are also inclined to be more suspicious and jealous of others.

Leaders of social-political action groups had mean scores that were similar to those of leaders of residence halls and socio-activity groups on the Factor C scale of the 16PF. Their mean scores on this scale differed significantly, however, from those of leaders of religious organizations and fraternal groups. This indicates that social-political action leaders tend to be emotionally less stable than these leaders.

Mean scores of social-political action leaders were significantly higher than for leaders of fraternal organizations on the Factor I scale. Scores on this scale made by leaders of other group categories were not statistically different from those of social-political action leaders. These results indicate that social-political action leaders seem to be more sensitive, dependent, and effeminate than do leaders of fraternal groups.

According to the results of the investigation, social-political action leaders differ significantly in mean scores from fraternal leaders and officers of residence halls on the Factor Q_2 and Leadership scales of the 16PF. They do not differ significantly from mean scores made by religious leaders and socio-activity group leaders. These findings suggest that social-political action leaders tend to be less group-dependent, prefer to make their own decision, and are more resourceful. These characteristics do not assist them to be elected to leadership positions in face-to-face groups.

Leaders of social-political action groups scored in a similar fashion on the Factor O scale to leaders of all groups except leaders in residence halls of Indiana University. This significant difference in mean scores suggests that social-political action leaders are more confident, self-assured, and placid than residence hall leaders.

Measured personality characteristics of social-political action leaders of Indiana University appear to bear a close resemblance to results reported by Heist (11) and Watts and Whittaker (23) in their studies of members of the Free Speech Movement at the University of California, Berkeley. The differences found between Indiana University social-political action leaders and leaders of referent groups on the Factor G, Q_1, and Dependency scales of the 16PF are strikingly similar to conclusions made by Heist (11:65) that FSM participants were more autonomous, impulsive, independent, liberal, culturally sophisticated, and motivated to explore the world of knowledge and ideas than groups with which they were compared. Watts and Whittaker (23:59) found FSM members to be more flexible in behavior than members of comparative groups. Similar results can be inferred from the data reported for leaders of social-political action groups of Indiana University.

It is apparent that the results of this investigation of social-political action leaders of Indiana University warrent the same conclusion made by Williamson and Hoyt (26:77); namely, that student leaders engaged in political activities at the time of their investigation were characteristically different in personality makeup from student leaders engaged in other types of activities. However, the generalization made by these researchers (26:77) that the motivations of student political leaders tend to be of such a nature that "unstable" and "neurotic" might be suitable terms to describe their behavior does not seem appropriate to describe the mental health of leaders of social-political action groups of Indiana University when compared with leaders of other campus groups. Leaders of social-political action groups did score significantly lower on the Factor C scale of the 16PF than leaders of religious organizations and fraternal groups. These results indicate that they appear emotionally less stable than religious and fraternal leaders. However, the mean scores of social-political action leaders do not differ significantly from those of leaders of residence halls and socio-activity groups. In addition, there were no significant differences among leaders of the five group categories studied in this investigation on the Neuroticism and Anxiety scales of the 16PF.

In summary, there is a unique combination of factors that serve to differentiate leaders of social-political action groups from leaders of referent groups at Indiana University. The three factors labeled radicalism, expediency, and independence contribute primarily to this uniqueness. There are several other factors, however, that contribute to the overall personality make-up of social-political action leaders. The personality characteristics that contribute to this pattern of traits are not peculiar to social-political action leaders alone. They are characteristic of leaders of one or more campus groups at Indiana University and appear in different combinations depending upon the group.

Perceptions of the campus environment by leaders of social-political action groups. Mean scores of leaders of social-political action groups differed significantly from those of referent groups on four of the five scales of the CUES. Their mean scores differed significantly on the Community and Awareness scales from leaders of all comparative groups. On the Scholarship scale, their mean scores differed significantly from those of leaders of three of the four referent groups. A significant statistical difference was observed on the Practicality scale only between the mean scores of social-political action leaders and leaders of fraternal organizations.

The significant differences observed between leaders of social-political action groups and leaders of all other referent groups on the Community and Awareness scales indicates that social-political action leaders tend to perceive the environment of the Indiana University campus as being less friendly, cohesive, and group oriented, than do leaders of referent groups. They do not view the environment as promoting a university-wide feeling of group welfare and loyalty to the same degree as other group leaders.

Leaders of social-political action groups seem to have a different perception of environmental emphasis on personal, poetic, and political understanding. When compared with leaders of other group categories, they perceive less emphasis at Indiana University on self-understanding, poetic appreciation, and understanding of the condition of man in world situations.

Leaders of social-political action groups and socio-activity groups tend to perceive the scholastic environment of Indiana University in similar ways. However, social-political action leaders scored significantly lower on the Scholarship scale than did leaders of religious organizations, residence halls, and fraternal groups. Leaders of social-political action groups tend to view the university environment as placing less emphasis on high academic achievement and in promoting a serious interest in scholarship than do leaders of referent groups.

Social-political action leaders differed significantly only from fraternal leaders on the Practicality scale. According to these results, fraternal leaders perceive the campus environment as having a practical, instrumental emphasis. Leaders of social-political action groups do not place as much importance upon procedures, personal status, and practical benefits in the university environment.

After comparing the perceptions of the campus environment by Indiana University group leaders, the results appear to be consistent with the results of the measured personality characteristics of these leaders. The radical, expedient, and independent traits which mark the personalities of social-political action leaders appear to influence their perceptions of the university environment in a significant fashion. Their intellectual orientation, aggressiveness, and autonomous functioning would seem reflected in their critical attitudes toward the degree of social cohesiveness, personal-social-world awareness, and scholarly interest that exists on a university campus.

Coker (4) found that a random sample of freshmen and sophomore students at Indiana University had higher scores on all scales of the CUES, except the Propriety scale, than did comparable students of the five regional campuses of Indiana University. This suggests that members of the general student population of Indiana University perceive the campus environment from non-critical points of view. These findings, along with the results of this investigation, seem to agree with the statements of Pace (17) who indicates that large multipurpose institutions are perceived by students as providing many social and political stimuli. Pace suggests, however, that these stimuli do not generate a wide-spread response from a majority of students.

Personality characteristics of "Conservative" and "Liberal" leaders of social-political action groups. Significant differences were found between mean scores of "Conservative" and "Liberal" social-political action leaders on nine of the twenty-three scales of the 16PF. These scales are: Factor F, G, I, N, O, Q_1, Responsive-Emotionality, Dependency, and Creativity.

The results of this section of the investigation indicate in popular terminology, that "Conservative" leaders tend to be more enthusiastic and happy-go-lucky in temperament, whereas "Liberal" leaders are more sober and serious. The scores of "Conservative" leaders suggest that they are more conscientious, shrewd, and apprehensive. "Liberal" leaders tend to be less dependable, more forthright, and confident. "Liberal" leaders tend toward a radicalism in personality traits while "Conservative" leaders seem to value traditional ideas and conventional ways of doing things. The scores of "Liberal" leaders, when compared with "Conservative" leaders, indicate that they are more creative and inventive. They also seem to be more emotionally sensitive and impractical in general affairs to a greater degree than "Conservative" leaders. They tend to be more self-sufficient than "Conservative" leaders who seem to be dependent upon group leadership.

Perceptions of the campus environment by "Conservative" and "Liberal" social-political action leaders. Mean scores of "Conservative" and "Liberal" leaders of social-political action groups differed significantly on three of the five *CUES* scales.

The mean scores of "Conservative" leaders on the Community and Awareness scales were significantly different from those of "Liberal" leaders. These results suggest that "Conservative" leaders perceive the campus environment of Indiana University as being more friendly, cohesive, and group-oriented, than do "Liberal" leaders. To a greater degree than "Liberal" leaders, they perceive that the campus emphasizes self-understanding, poetic appreciation, and understanding of the condition of man in world situations. The significantly higher mean score of "Liberal" leaders on the Propriety scale indicates that they view the environment of the campus as being polite, considerate, cautious, and lacking in emphasis on demonstrative, assertive, risk-taking behaviors.

These results seem closely related to the measured personality characteristics of "Conservative" and "Liberal" leaders. "Liberal" leaders are more critical of the university environment while "Conservative" leaders are more tolerant of conditions on campus. The critical perceptions of "Liberal" leaders seem to be related to the significantly different scores made on the Factor G, Q_1, and Dependency scales of the *16PF* by leaders of social-political action groups. It would appear that a large amount of the variance contributing to the significant difference between leaders of social-political action groups and leaders of referent groups could be attributed to "Liberal" leaders.

Personality characteristics of male and female leaders of campus groups. Male and female leaders of the five groups, for which comparisons were made, differed significantly on five of the 16 primary scales of the *16PF*. No significant differences were observed between male and female leaders on the second-order scales.

Female leaders scored significantly higher on the Factor A and I scales. According to these results, female leaders are more outgoing, good-natured, and cooperative than male leaders. They also appear to be more dependent and more sensitive to emotions.

Male leaders scored significantly higher on the Factor E, L, and N scales of the 16PF than did female leaders. These results indicate that male leaders are more assertive, independent, and aggressive than their female counterparts. Their scores also indicate that they tend to be more suspicious, self-opinionated, shrewd, and calculating, than female leaders.

Perceptions of the campus environment by male and female leaders. Female leaders of the five groups studied in this investigation scored significantly higher on all scales of the CUES except the Practicality scale. No significant differences were observed between sexes on this scale.

The significantly higher scores observed for female leaders on the Community, Awareness, Propriety, and Scholarship scales of the CUES indicate that they tend to have more optimistic perceptions of the environment of Indiana University. To a greater degree than males, they see the campus environment as one that places emphasis on the general welfare of students. They tend to perceive the university as an institution that stresses awareness of self, society, and esthetic stimuli. Female group leaders also indicate that the campus is conservative, conventional, and scholarly.

These results are consistent with the measured personality characteristics of male and female leaders. The optimism with which female leaders perceive the campus environment would appear to be closely related to personality patterns that tend to exhibit outgoing, sensitive, dependent, submissive, trusting, and forthright temperment traits.

Demographic characteristics of leaders of social-political action groups. Leaders of social-political action groups did not differ significantly in age from leaders of other group categories except residence halls. Leaders of residence halls were significantly younger than social-political action leaders.

The Scholastic Aptitude Test is used as a criterion for admission to Indiana University. Leaders of social-political action groups scored significantly higher on the verbal scale of the SAT than did leaders of residence halls. There were no significant differences in scores between leaders of social-political action groups and other leaders of referent groups.

Leaders of social-political action groups did not differ significantly from leaders of other group categories on the basis of cumulative grade point averages. It is interesting to note, however, that their mean cumulative grade point average was next to the lowest average made by groups of leaders.

A larger number of social-political action leaders reported their home states to be located in the eastern, southern, and western sections of the United States than did leaders of other groups. However, 29 of the 46 leaders of the social-political action group did list Indiana as their home state. The majority of the leaders of referent groups gave Indiana or middle-western states as the location of their homes.

Social-political action groups, along with religious organizations and socio-activity groups, had more leaders who were seniors and graduate students in terms of class standing. This was not observed for other groups. However, 58 per cent of the leaders of the social-political action group were freshmen, sophomores, or juniors.

Approximately 61 per cent of the leaders of the social-political action group listed social science as their major subject. This is a much larger number than would be expected for this group. Leaders of referent groups gave social science as their major less frequently than expected.

Only nine of the 235 group leaders who participated in this investigation were married. Eight of these leaders were members of the social-political action group. While the social-political action group has the greatest number of married leaders, they represent only approximately 17 per cent of the total number of leaders in this group.

Fewer leaders than would be predicted for social-political action groups, religious organizations, and residence halls, were members of fraternal organizations. Only nine, or approximately 19 per cent, of the leaders of the social-political action group were members. Religious organizations and residence halls had even lower percentages.

Twenty of the 46 leaders of social-political action groups live in private housing while attending Indiana University. This is a greater number than would be predicted for this group. Eighteen social-political action leaders live in university housing, and eight reside in fraternal housing. The majority of the leaders of referent groups live in fraternal or university housing.

Fewer social-political action leaders preferred the Democratic and Republican parties than was expected. Seventeen, a larger number than expected, indicated their preference for some other party or political organization. This was not observed for leaders of other referent groups. They listed either the Democratic or Republican parties as their choices.

More often than predicted, social-political action leaders stated they had no religious preference. This was also observed for leaders of the socio-activity group. Leaders of religious organizations listed the Protestant religion more often than would be predicted for this group, while residence hall and fraternal leaders stated preferences for the Roman Catholic or Jewish religions more often than would be expected.

Twenty-three of the 46 leaders of the social-political action group reported that their mothers had completed sixteen or more years of education. This was almost twice the number expected for this group. Fewer leaders of referent groups than expected reported this level of education for their mothers. Leaders of groups, other than social-political action and socio-activity, had more mothers than expected who had completed twelve or less years of education.

Only eight leaders of the social-political action group reported that they had part or full-time work experience. More frequently than predicted, these leaders indicated no work experiences. Except for residence hall leaders, the opposite was observed for leaders of referent groups. More often than would be expected, leaders of social-political action groups, socio-activity groups, and fraternal organizations reported their work experience was confined to summer employment.

Sixteen of the leaders of social-political action groups indicated that their interest in the type of group of which they are leaders first began in grades 10-12. Twenty-one responded that their first interest came in college during undergraduate years. Entries in both of these grade level categories were larger than would have been predicted for the social-political action group. Fraternal and religious leaders also reported, in greater numbers than expected, that their first interest was in grades 10-12. Leaders of socio-activity groups and fraternal organizations indicated their first interest began in grades 13-16. This grade category was given more often than expected for leaders of these groups.

Twenty-seven of the 46 social-political action leaders stated that they had held 0-5 elected leadership positions in the past. This is a larger number than would be predicted for this group. A larger number of fraternal leaders than expected also listed 0-5 positions. Less than 50 per cent of the leaders of social-political action groups had held six or more leadership positions. Leaders of religious organizations and residence halls reported more often than would be expected that they had held 6-10 positions in the past.

Leaders of social-political action groups and socio-activity groups had larger numbers of parents, than would be predicted, who expressed no concern or were unhappy with the present leadership roles of their off-spring. Sixteen leaders of the social-political action group indicated their parents were not concerned or were unhappy. Thirty indicated that their parents were pleased. Leaders of religious organizations, residence halls, and fraternal organizations indicated, more often than predicted, that their parents were pleased with their leadership roles.

Nineteen of the 46 leaders of the social-political action group indicated no familial participation in the type of organization of which they are now leaders. Eleven reported that siblings participated in similar groups. A larger than expected number of leaders of residence halls, socio-activity groups, and fraternal organizations also reported no familial participation.

One hundred thirty-four leaders of the 235 who participated in the investigation indicated that classmates were the primary influence for interesting them in the groups of which they are leaders. Fewer social-political action leaders than expected reported classmates as being the primary reason for their interest. Seventeen indicated that other individuals; not including parents, teachers, and classmates, were influential.

Forty-one of the social-political action leaders had been members of the organizations of which they are now leaders for one or more years. Similar results were observed for referent groups, except for residence halls. Thirty-four residence hall leaders indicated they had been members of their organizations for a year or less.

Thirty-four of the 46 leaders of social-political action groups indicated they spent 0-7 hours per week performing group leadership functions. Similar numbers of leaders of referent groups, except fraternal organizations, indicated the same amount of time being spent in this activity. Twenty-eight leaders of fraternal organizations reported eight hours or more each week were spent in performing leadership duties.

Except for fraternal leaders, other group leaders indicated more frequently than expected, that 0-25 per cent of their social life is centered around the groups of which they are leaders. Twenty leaders of the social-political action group indicated this category. Eleven reported 26-50 per cent and 12 reported 51-75 per cent of their social life centered around the group. Similar results were observed for referent groups, except for fraternal organizations. Thirty-two fraternal leaders indicated that 51-100 per cent of their social life was centered in fraternal organizations.

Thirty-six leaders of social-political action groups reported that the chief reason for election to positions of leadership was interest in the groups or a knowledge of the background and goals of the groups. A larger number than expected from socio-activity and fraternal organizations indicated leadership to be the reason. More often than expected, leaders of religious organizations and residence halls indicated that having pleasant personalities was the reason for election.

Twenty-two leaders of social-political action groups stated that the chief goal of the groups which they lead was to improve society. None of the leaders from referent groups indicated this reason. One hundred and two leaders perceived service to be the chief goal for their groups while 78 stated that the primary group goal was personal development.

Forty-four social-political action leaders perceive their chief satisfaction from their leadership roles to be gained from improving society or from service to others. Only four leaders from referent groups indicated their primary source of satisfaction was the improvement of society. Most indicated personal development or service.

A number of interesting comparisons can be made when the results of this investigation are compared with the findings of Watts and Whittaker (23) and Heist (11) from their research with participants in the Free Speech Movement at the University of California, Berkeley. Watts and Whittaker reported that the mean age of the sample of FSM members they studied was significantly different from a cross-section of the university population. Social-political action leaders of Indiana University had a mean age of 20.935 years which was not significantly different from leaders of referent groups, except for residence halls. The mean age of Indiana University social-political action leaders is similar to the mean age of 20.89 reported for the FSM leaders.

Watts and Whittaker reported that 42.7 per cent of the FSM members participating in their study were seniors or graduate students. Similar findings were given by Heist. Forty-one per cent of the leaders of the social-political action groups at Indiana University were seniors or graduate students.

Approximately 60 per cent of the leaders of the social-political action groups at Indiana University gave social science as their major subject. Similar results are reported by Watts and Whittaker with approximately 50 per cent of the FSM participants majoring in social science. Heist indicates that about 45 per cent were majoring in social science.

Watts and Whittaker did not find any significant differences between the cumulative grade point averages of FSM members and the cross-section of the student population with which they were compared. No significant difference between social-political action leaders and leaders of referent groups at Indiana University in terms of cumulative grade point averages was found. Heist did obtain significant differences between senior FSM members and seniors in a comparative group when mean grade point averages were compared.

Leaders of social-political action groups at Indiana University reported that 54 per cent of their fathers had completed 16 years or more of education. This was not significantly different from leaders of referent groups. They also stated that 50 per cent of their mothers had attained an educational level of 16 years or more. Similar results were found by Watts and Whittaker. They report that about 53 per cent of the fathers and 44 per cent of the mothers of members of the FSM had attained an educational level of 16 or more years.

Similar trends can be observed in terms of comparing religious preferences of social-political action leaders of Indiana University with FSM members. Watts and Whittaker found that approximately 50 per cent of their sample reported no religious affiliation. About 30 per cent of the leaders of social-political action leaders of Indiana University stated that they had no religious preference.

Heist states that approximately 50 per cent of the FSM members included in his study were transfer students and many came from eastern and midwestern states. The percentage of social-political action leaders at Indiana University that gave home states outside Indiana and the mid-west was not as high. Thirty-three per cent stated that their home states were located in eastern, southern, and western states.

In summary, comparisons made between leaders of social-political action groups at Indiana University and FSM members at Berkeley on the basis of several demographic variables show these leaders to be quite similar. The comparisons that could be made on the basis of personality characteristics between these two groups of students also indicated common personality traits may be shared. The critical perceptions of social-political action leaders of the campus environment at Indiana University and the demonstrated protest of FSM participants in Berkeley indicates that these students probably have many similar ideas and commitments. These similarities among students on campuses of two of the larger universities of the United States provide additional information to support Bereiter and Freedman (1) who state that students in certain academic areas who come from particular socio-economic backgrounds tend to be found in the liberal student population. These are the students who are the most likely candidates for membership in social-political action groups.

Demographic characteristics of "Conservative" and "Liberal" leaders of social-political action groups. "Conservative" and "Liberal" leaders of social-political action groups at Indiana University were compared on the basis of four demographic variables. These were: age, *SAT*-verbal score, *SAT*-mathematics score, and cumulative grade point average. No significant differences were found between leaders on three of the variables.

"Liberal" leaders scored significantly higher than "Conservative" leaders on the SAT-verbal scale. This indicates that "Liberal" leaders tend to have greater aptitude for comprehending and utilizing materials of a verbal nature.

Demographic characteristics of male and female leaders. Male and female leaders of the five group categories studied in this investigation were compared on the basis of the four demographic variables listed above. No significant differences were found between leaders on three of the variables.

Male leaders scored significantly higher on the mathematics scale of the SAT than female leaders. This suggests that male leaders have greater aptitude for comprehending situations where mathematics are utilized.

Interrelationships among the instruments used in the investigation. Correlation coefficients were computed from the scores of group leaders for the different scales of the 16PF, CUES, and for selected demographic variables.

The table of correlations among the 16PF and CUES scales shows a number of relationships that differ significantly from zero at the 0.01 level of confidence. These coefficients range from a minus 0.291 to 0.335. Even though these correlations are significantly different from zero, only approximately eleven per cent of the variance, for example, can be accounted for by the association of two scales when the coefficient is 0.335. As such, any prediction of scores on scales of the 16PF from scores on the CUES scales would be very difficult.

The SAT-verbal scale correlates with twelve of the 23 scales of the 16PF with significant differences from zero being obtained. The coefficients range from minus 0.280 to 0.424. Approximately 18 per cent of the variance can be accounted for by the association of two scales that reach a coefficient of 0.424.

The SAT-mathematics scale correlates in a positive direction with the Factor B scale of the 16PF. About six per cent of the variance can be accounted for through the association of the two scales.

Cumulative grade point averages and four scales of the 16PF produced correlation coefficients significantly different from zero. The coefficients ranged from minus 0.174 to 0.273.

As the correlation coefficients among scales of the 16PF and selected demographic variables are very low, and the percentage of the variance that can be accounted for through association of any two variables was found to be small; useful predictions would be difficult to make from these variables.

The relationship found among CUES scales and selected demographic variables were, likewise, too small to facilitate useful predictions even though some coefficients differed significantly from zero.

CHAPTER IV

CONCLUSIONS, IMPLICATIONS, AND SUMMARY

This chapter consists of two sections. The first section contains a review of the research hypotheses, the conclusions, and implications of the results. The second section contains a brief summary of the investigation.

Conclusions and Implications

Hypothesis 1: There are no significant differences in personality characteristics as measured by the 16PF among the compared categories of student leaders at Indiana University.

Conclusion 1: Significant differences were observed among group leaders on fifteen of the twenty-three primary and second-order scales of the 16PF. On the basis of these results, Hypothesis 1 was rejected.

Implications: A unique combination of factors serve to differentiate leaders of social-political action groups from leaders of referent groups at Indiana University. Three factors labeled radicalism, expediency, and independence contribute primarily to this uniqueness. Other factors that appear to contribute to the overall personality make-up of social-political action leaders are also characteristic of leaders of one or more campus groups. They appear in different combinations, depending upon the group.

Hypothesis 2: There are no significant differences in 16PF inventoried personality characteristics between "Liberal" and "Conservative" segments of the Social-Political Action category.

Conclusion 2: Significant differences were observed between "Conservative" and "Liberal" leaders on nine of the twenty-three primary and second-order scales of the 16PF. On the basis of these results, Hypothesis 2 was rejected.

Implications: "Liberal" leaders of social-political action groups, in popular terminology, tend to be more sober, serious, less dependable, and more confident, than "Conservative" leaders. They are more inventive, self-sufficient, more emotionally sensitive, and more impractical in general affairs. "Liberal" leaders tend toward a radicalism in personality traits while "Conservative" leaders seem to value traditional ideas and conventional ways of doing things.

Hypothesis 3: There are no significant differences in measured personality characteristics between male and female elected leaders across the five group categories.

Conclusion 3: Significant differences were observed between male and female leaders on five of the sixteen scales of the 16PF. No significant differences were observed between male and female leaders on the second-order scales. On the basis of these results, Hypothesis 3 was rejected.

Implications: Traditional sex differences appear on these measured personality characteristics. Females, to a greater degree than males, tend to be more outgoing, good-natured, and cooperative. They also seem to be more dependent on others and exhibit more emotional sensitivity. Males are more assertive, independent, and aggressive. They also tend to be more suspicious, self-opinionated, shrewd, and calculating, than female leaders.

Hypothesis 4: There are no significant differences in perceived campus environmental characteristics among compared categories of campus group leaders.

Conclusion 4: Significant differences were observed among group leaders on four of the five scales of the CUES. On the basis of these results, Hypothesis 4 was rejected.

Implications: Leaders of social-political action groups appear to perceive the university environment in two ways that are different from leaders of all referent groups. They do not perceive a community feeling of friendship and group welfare to the same degree as other leaders. They also perceive less emphasis at Indiana University on self-understanding, poetic appreciation, and understanding of the condition of man in world situations. Social-political action leaders differ from three groups by perceiving less emphasis on high academic achievement and scholarship in the campus environment. They differ from one of the referent groups by viewing the campus as placing less emphasis on practical benefits.

Hypothesis 5: There are no significant differences in perceived campus environmental characteristics between "Liberal" and "Conservative" group leaders within the Social-Political Action category.

Conclusion 5: Significant differences were observed between "Conservative" and "Liberal" leaders on three of the five scales of the CUES. On the basis of these results, Hypothesis 5 was rejected.

Implications: In general, "Liberal" leaders are more critical of conditions within the university environment while "Conservative" leaders are more tolerant of the existing state of affairs at Indiana University. The critical perceptions of "Liberal" leaders appear to be related to the significantly different scores made on the Factor G, Q_1, and Dependency scales of the 16PF by leaders of social-political action groups.

Hypothesis 6: There are no significant differences in perceived campus environmental characteristics between male and female elected leaders across the five group categories.

Conclusion 6: Significant differences were observed between male and female leaders on four of the five scales of the CUES. On the basis of these results, Hypothesis 6 was rejected.

Implications: Female leaders tend to have more optimistic perceptions of the university environment than do male leaders. The optimism with which they perceive the environment would appear to be closely related to personality patterns of female leaders that were previously discussed.

Hypothesis 7: There are no significant differences in selected types of personal and demographic characteristics among compared categories of campus group leaders.

Conclusion 7: Significant differences were observed among group leaders on twenty-three personal and demographic variables. On the basis of these results, Hypothesis 7 was rejected.

Implications: The observed differences on demographic variables, and the similarities between Indiana University social-political action leaders and Free Speech Movement members provides support for the findings of Bereiter and Freedman (1). These investigators have concluded that students in certain academic areas who come from particular socio-economic backgrounds tend to be found in the liberal student population. These are the students who are the most likely candidates for membership in social-political action groups.

Hypothesis 8: There are no significant differences in selected demographic characteristics between "Liberal" and "Conservative" segments of the Social-Political Action category.

Conclusion 8: "Liberal" and "Conservative" leaders were compared on the basis of four demographic variables. A significant difference was observed between "Liberal" and "Conservative" leaders on one of the four variables; the verbal scale of the SAT. On the basis of these results, Hypothesis 8 was rejected.

Implications: These results suggest that "Liberal" leaders may be better able to present and carry out programs of a verbal nature since they tend to have higher verbal aptitude.

Hypothesis 9: There are no significant inter-correlations among the 16PF scales, the CUES scales, and selected demographic variables for the leader subjects.

Conclusion 9: A number of correlation coefficients among the scales of the 16PF, the scales of the CUES, and selected demographic variables show relationships that differ significantly from zero. Both negative and positive relationships were observed. On the basis of these results, Hypothesis 9 was rejected.

Implications. The magnitude of all correlation coefficients was very low. The largest coefficient was 0.424. The amount of variance accounted for by two scales that produce a coefficient of 0.424 is approximately 18 per cent. Because of the low magnitude of the correlations and the small amount of variance that can be accounted for through the association of any two variables, the rejection of Hypothesis 9 needs to be reviewed cautiously since no appreciable prediction can be made from one variable to another.

Summary

Against the background of student unrest and widespread concern about student social-political activism on college and university campuses across the nation, this study was conceived and developed. The investigation was designed to provide data about the characteristics of social-political action leaders at one institution, Indiana University, and to compare the characteristics of social-political action leaders with other types or categories of student leaders.

In order to facilitate statistical treatment of the data, the following research hypotheses were formulated in null form:

1. There are no significant differences in personality characteristics as measured by the *16PF* among the compared categories of student leaders at Indiana University.
2. There are no significant differences in *16PF* inventoried personality characteristics between "Liberal" and "Conservative" segments of the Social-Political Action category.
3. There are no significant differences in measured personality characteristics between male and female elected leaders across the five group categories.
4. There are no significant differences in perceived campus environmental characteristics among compared categories of campus group leaders.
5. There are no significant differences in perceived campus environmental characteristics between "Liberal" and "Conservative" group leaders within the Social-Political Action category.
6. There are no significant differences in perceived campus environmental characteristics between male and female elected leaders across the five group categories.
7. There are no significant differences in selected types of personal and demographic characteristics among compared categories of campus group leaders.
8. There are no significant differences in selected demographic characteristics between "Liberal" and "Conservative" segments of the Social-Political Action category.
9. There are no significant inter-correlations among the *16PF* scales, the *CUES* scales, and selected demographic variables for the leader subjects.

The original total population from which the study sample was drawn consisted of 559 elected officers of recognized student organizations on the campus of Indiana University. For purposes of the study, the total population was divided into five types or categories of student leaders so that comparisons could be made between leaders of groups differing in stated purposes and goals. The division was made into the following categories: 1) Social-Political Action Group Leaders - e.g., elected officers and major committee chairmen of the eight social-political action groups organized and registered according to the procedures established by the Indiana University Student Activities Office; 2) Religious Organization Leaders - e.g., elected officers of the ten recognized religious organizations at Indiana University; 3) University Residence Hall Leaders - e.g., elected officers and governors of the nine undergraduate residence quadrangles at Indiana University; 4) Socio-Activities Leaders - e.g., elected officers of officially recognized socio-activities (special interest, service, and program) groups at Indiana University; and 5) Fraternal Leaders - e.g., elected officers of campus sanctioned fraternities and sororities at Indiana University.

The original sample included all of the elected officers within the Social-Political Action and Religious group categories. A one-third sample was taken of the Residence Hall, Socio-Activity and Fraternal leaders by using a Table of Random Numbers. This sampling procedure was followed so that there would be approximately the same number of subjects delegated to each of the categories being compared. Ninety per cent of the men and 93 per cent of the women in the original sample participated in the study.

Each subject participating in the investigation completed the Sixteen Personality Factor Questionnaire, the College and University Environment Scales, and a personal data form. Demographic data for each subject was taken by the investigator from Indiana University student personnel records.

Differences among categories of student leaders were tested by three different statistical procedures, depending upon the type of data and number of groups involved. The statistical designs selected for making the among group comparisons were analysis of variance, the Student's "t" test, and the Chi Square test of significance. Intercorrelations among the scales of the 16PF and the CUES were computed, as well as the correlations between the scales of the two inventories and SAT-Verbal scores, SAT-Math scores, and accumulative grand-point-averages.

Results and conclusions. The nine hypotheses formulated for this investigation were rejected. Significant differences were observed among group leaders in terms of measured personality characteristics, perceived campus environmental characteristics, and selected demographic and personal characteristics. Significant differences were observed between "Liberal" and "Conservative" leaders of social-political action groups for the same variables. Also, significant differences between male and female leaders of the five group categories were observed for the same kinds of data. Although significant intercorrelations were found among the 16PF scales, the scales of the CUES, and selected demographic data; none of the coefficients were of sufficient magnitude so that appreciable predictions could be made from one variable to another.

These results suggest a unique combination of personality traits serve to differentiate leaders of social-political action groups from leaders of referent groups at Indiana University. Three factors labeled radicalism, expediency, and independence contribute primarily to this uniqueness. Other factors that appear to contribute to the overall personality make-up of social-political action leaders are also characteristic of leaders of one or more campus groups. They appear in different combinations depending upon the group.

The unique pattern of personality traits appears related to critical perceptions of the Indiana University campus environment by leaders of social-political action groups. These perceptions seem to be more negative than those of leaders of most referent groups. Their intellectual orientation, eggressiveness, and autonomous functioning would seem reflected in critical attitudes toward the degree of social cohesiveness, personal-social-world awareness, and scholarly interest that exists on a university campus.

The analysis of demographic variables indicates that leaders of social-political action groups differ significantly from leaders of other groups on the campus of Indiana University on several factors related to socio-economic background and personal experiences of group leaders. There also appears to be certain similarities between Indiana University social-political action leaders and members of the Free Speech Movement of the University of California, Berkeley. These results suggest that leaders of social-political action groups tend to come from particular socio-economic backgroups and gravitate to certain academic studies within a university. These are the students who are the most likely candidates for membership in social-political action groups.

APPENDIXES

Appendix A

INDIANA UNIVERSITY
Division of Student Personnel
Bloomington, Indiana

Office of the Dean of Students

For many years the Indiana University Division of Student Personnel has stressed the contributions made by campus organizations to I.U.'s total educational program. As the university has grown in size and complexity, campus organizations have become one of the principle means by which students find outlets for interests other than their more formal classroom experiences. These organizations have provided an equally important service in assisting individual students to identify with and find a place in the Indiana University community. The officers of the various campus groups have made significant contributions to the student body by providing the leadership necessary to meet the challenges of a growing university.

The Division of Student Personnel is presently engaged in a research project to facilitate communication with officers of campus groups and to improve understanding of student leadership on campus. It is believed that the results will help the Division to be of better service to students in the future. One phase of the project is a study of a sample of the elected officers of campus organizations. Your name was included in the sample and we hope you will be willing to assist us with this project.

The elected officers who participate will be asked to give one and one-half hours of their time for testing and completion of personal data blanks. Data obtained will be treated in complete confidence. No names of individual officers will be revealed and no comparisons between individual organizations will be made.

Mr. David G. Jansen of the Student Personnel Division will be directing this phase of the research. He will be contacting you in the near future suggesting dates and times for your participation in the study. We hope you will give him your cooperation.

Sincerely yours,

Robert H. Shaffer
Dean of Students

Thomas C. Schreck
Director of Student Activities

Appendix B

INDIANA UNIVERSITY
Office of the Dean of Students
Bloomington, Indiana

Recently you received a letter from Dean Thomas Schreck and me describing a research project to facilitate communication with officers and leaders of campus groups and to improve understanding of student leadership on campus. As an officer or leader of a recognized campus organization, you are asked to take the time to respond to two inventories. Time required for this participation is one and one-half hours.

Realizing that you have a busy schedule, seven alternative times for participation are suggested for your consideration. You may come at the time which is most convenient in terms of your other commitments.

Date	Time	Place
1) Wednesday, March 16	7:00 P.M.	Ballantine 240
2) Thursday, March 17	3:30 P.M.	Ballantine 331
3) Friday, March 18	3:30 P.M.	Ballantine 315
4) Monday, March 21	3:30 P.M.	Ballantine 315
5) Monday, March 21	7:00 P.M.	Ballantine 240
6) Tuesday, March 22	3:30 P.M.	Ballantine 233
7) Tuesday, March 22	7:00 P.M.	Ballantine 240

As mentioned in the earlier letter, all information obtained will be treated in complete confidence. No names of individual leaders will be revealed and no comparisons between individual organizations will be made.

It would be appreciated if you would choose a time for testing which fits in with your schedule and make a special note of it. Since your contribution is needed to make this project successful, I trust that you will be able to take part at one of the appointed times. I heartily encourage your participation in this project and believe that you will be making a lasting contribution to the Division of Student Personnel's understanding of student leadership at Indiana University.

Robert H. Shaffer, Dean of Students

Appendix C

INDIANA UNIVERSITY
Office of the Dean of Students
Bloomington, Indiana

Prior to spring vacation you received a letter inviting you to participate in a research project to facilitate communication with officers and leaders of campus groups and to improve understanding of student leadership on campus. As an officer or leader of an Indiana University campus organization, you were asked to set aside one and one-half hours of your time for this project.

Because the initial testing dates fell within mid-term week, you may have found it inconvenient to participate at that time. Realizing this, five additional times for participation are suggested for your consideration. You may come at the one time which is most convenient in terms of your other commitments.

	Date	Time	Place
1)	Tuesday, April 5	3:30 P.M.	Ballantine 146
2)	Tuesday, April 5	7:00 P.M.	Ballantine 240
3)	Thursday, April 7	3:30 P.M.	Ballantine 240
4)	Thursday, April 7	7:00 P.M.	Ballantine 240
5)	Friday, April 8	3:30 P.M.	Ballantine 242

It would be greatly appreciated if you would choose a time for participation which is convenient for you and make a special note of it. Since the individuals selected for participation were included to insure a representative sample of male and female leaders, and to involve leaders of all types of campus groups, your contribution is needed to make this project successful. I heartily encourage you to participate.

All information obtained will be treated in complete confidence. No names of individual participants will be revealed and no comparisons between individual organizations will be made.

Sincerely,

Robert H. Shaffer
Dean of Students

Appendix D

Group	Number of elected leaders obtained		
	M	F	Total
1. Social-Political Action			
a. "Liberal"			
1) Americans for Democratic Action	5	1	6
2) NAACP	3	3	6
3) Students for a Democratic Society	2	5	7
4) Young Peoples Socialist League	3	1	4
b. "Conservative"			
1) Conservative League	4	1	5
2) Young Americans for Freedom	3	2	5
3) Young Democrats	4	2	6
4) Young Republicans	4	3	7
2. Religious			
a. Baha'i Club	2	-	2
b. Baptist Student Union	1	2	3
c. Cadre Club	-	1	1
d. Campus Christian Foundation	1	2	3
e. Canterbury Club	2	2	4
f. Christian Science Organization	1	-	1
g. Gamma Delta (Lutheran)	2	1	3
h. Hillel Foundation	2	-	2
i. Intervarsity Christian Fellowship	2	2	4

Appendix D

Continued

Group	Number of elected leaders obtained		
	M	F	Total
j. Lutheran Student Association	2	1	3
k. Navigators	2	2	4
l. Newman Club	2	2	4
m. Roger Williams Foundation (Baptist)	2	2	4
n. University Presbyterian Chapel	3	1	4
o. Wesley Foundation	2	2	4
3. Residence Hall	22	26	48
4. Socio-Activities			
a. Alpha Phi Omega	2	-	2
b. Amateur Radio Club	1	1	2
c. American Field Service	2	-	2
d. Angel Flight	-	2	2
e. Arnold Air Society	1	-	1
f. Association of Women Students	-	2	2
g. Blue Key	2	-	2
h. Crimson Cadettes	-	1	1
i. Classical Guitar Society	-	1	1
j. Enomene	-	2	2
k. Fencing Club	1	-	1
l. Folkdance Club	1	-	1

Appendix D

Continued

Group	Number of elected leaders obtained		
	M	F	Total
m. Mortar Board	-	2	2
n. Oceanides	-	1	1
o. Pershing Rifles	3	-	3
p. Plieades	-	2	2
q. Sailing Club	1	-	1
r. Skull and Crescent	2	-	2
s. Soccer Club	1	-	1
t. Spelunking Club	1	1	2
u. Student Athletic Board	1	1	2
v. Student Foundation	-	2	2
w. Tryus	2	-	2
x. Union Board	1	-	1
y. YMCA	1	-	1
z. YWCA	-	2	2
aa. Women's Recreation Association	-	1	1
5. Fraternal	27	24	51

Appendix E

Personal Data Sheet

1. First elected office: grades 1-6 ____; 7-9 ____;
   10-12 ____; 13-16 ____.

2. First interested in type of group of which now a leader:
   grades 1-6 ____; 7-9 ____; 10-12 ____; 13-16 ____.

3. Person who influenced you most in becoming interested in the
   group of which you are an officer: parent ____;
   teacher ____; classmate ____; other (please note)____.

4. Hours spent per week in performing duties as campus group
   officer: 0-3____; 4-7 ____; 8-11 ____; 12+ ____.

5. Number of elected leadership positions held in the past:
   0-5 ____; 6-10 ____; 11-15 ____; 16+ ____.

6. Proportion of your social life at Indiana University which
   centers around the group of which you are an officer:
   0-25% ____; 26-50% ____; 51-75% ____; 76-100% ____.

7. Chief satisfaction in present group leadership role:
   social (improved society) ____; recreational ____;
   personal development ____; service ____.

8. Political preference: Democratic ____; Republican ____;
   other (please note) ____.

9. Length of membership in organization of which now an officer:
   less than 6 months ____; 1 year ____; 2 years ____;
   3 years or more ____.

10. Why do you think you were elected to a position of group
    leadership: (choose one) leadership ability ____;
    interest in area ____; knowledge of group background
    and goals ____; pleasant personality ____.

11. Attitude of parents toward group leadership role:
    pleased ____; no concern ____; unhappy ____.

Appendix E

Continued

12. Birth order: only child ____; first born ____;
    last born ____; between 1st and last ____.

13. Family members who have been active in the type of organization of which you are an officer: father ____;
    mother ____; siblings ____; none ____.

14. Organizations other than the one of which you are an officer which are presently significant in your life (member and/or participant): none ____; religious ____;
    social-activities ____; political ____.

15. Chief goal, as you see it, of the organization of which you are an officer: service ____; recreation ____;
    personal development ____; social (improved society) ____.

16. Chief long-term benefit to be gained from present group leadership experience: social service ____;
    vocational ____; personal development ____;
    other (please note) ____.

Appendix F

Demographic Data (Student Personnel Files)

1. Age: 18-19 ____; 20-1 ____; 22-3 ____; 24+ ____.
2. Marital Status: married ____; single ____; divorced ____.
3. Fraternity or Sorority: member ____; non-member ____.
4. Class Standing: freshman or sophomore ____; junior ____; senior ____; graduate student ____.
5. College Major: business ____; sciences ____; social science ____; humanities ____; fine arts ____.
6. Education of Father: 11 years or less ____; high school graduate ____; grades 13-15 ____; grade 16 or more ____.
7. Education of Mother: 11 years or less ____; high school graduate ____; grades 13-15 ____; grade 16 or more ____.
8. Father's Occupation: professional, managerial ____; clerical and sales ____; agriculture, marine forestry ____; mechanical and manual ____.
9. Mother's Occupation: professional, managerial ____; clerical and sales ____; mechanical and manual ____; housewife ___.
10. Work Experience: full-time ____; part-time ____; summer only ____; none ____.
11. SAT Verbal Score: ____
12. SAT Math. Score: ____
13. Indiana University Grade Point Average: ____
14. Type of Student Housing: university residence hall ____; university married housing ____; private dwelling ____; fraternal ____.

Appendix F

Continued

15. Home State: Indiana _____; Middle West _____; Eastern U.S. _____; Southern and Western United States _____.

16. Religious Preference: Protestant _____; Roman Catholic _____; Jewish _____; none _____; other (please note)_____.

Appendix G

The Sixteen Personality Factor Questionnaire

The sixteen primary and seven secondary dimensions of the 16PF are briefly described below:*

A person with a high score is described as:	Primary Factor	A person with a low score is described as:
OUTGOING, warmhearted, easy-going, participating	A	RESERVED, detached, critical, cool
MORE INTELLIGENT, abstract-thinking, bright	B	LESS INTELLIGENT, concrete-thinking
EMOTIONALLY STABLE, faces reality, calm	C	AFFECTED BY FEELINGS, emotionally less stable, easily upset
ASSERTIVE, independent, aggressive, stubborn	E	HUMBLE, mild, obedient, conforming
HAPPY-GO-LUCKY, heedless, gay, enthusiastic	F	SOBER, prudent, serious, taciturn
CONSCIENTIOUS, perservering, staid, rule-bound	G	EXPEDIENT, a law to himself, by-passes obligations
VENTURESOME, socially bold, uninhibited, spontaneous	H	SHY, restrained, diffident, timid
TENDER-MINDED, dependent, over-protected, sensitive	I	TOUGH-MINDED, self-reliant, realistic, no-nonsense
SUSPICIOUS, self-opinionated, hard to fool	L	TRUSTING, adaptable, free of jealousy, easy to get on with
IMAGINATIVE, wrapped up in inner urgencies, careless of practical matters, bohemian	M	PRACTICAL, careful, conventional, regulated by external realities, proper

---

*Cattell, R.B., and Stice, G., Handbook for the Sixteen Personality Factor Questionnaire, Institute for Personality and Ability Testing, Champaign, Illinois, 1957, pp. 11-19.

Appendix G

Continued

SHREWD, calculating, worldly, penetrating	N	FORTHRIGHT, natural, artless, sentimental
APPREHENSIVE, worrying, depressive, troubled	O	PLACID, self-assured, confident, serene
EXPERIMENTING, critical, liberal, analytical, free-thinking	Q_1	CONSERVATIVE, respecting established ideas, tolerant of traditional difficulties
SELF-SUFFICIENT, prefers own decisions, resourceful	Q_2	GROUP-DEPENDENT, a "joiner" and good follower
CONTROLLED, socially-precise, self-disciplined, compulsive	Q_3	CASUAL, careless of protocol, untidy, follows own urges
TENSE, driven, overwrought, fretful	Q_4	RELAXED, tranquil, torpid, unfrustrated

A person with a low score is described as:	Secondary Factor	A person with a high score is described as:
STABLE, relaxed	ANXIETY	ANXIOUS (The origin may be either situational or neurotic)
INTROVERTED, shy	INTROVERSION	OUT-GOING, uninhibited
EMOTIONAL, more subject to depression	RESPONSIVE EMOTIONALITY	IMPERTURBABLE, decisive, enterprising
GROUP-DEPENDENT, passive	DEPENDENCE	SELF-DIRECTING, aggressive, tough poise
ABSENCE of neurotic difficulties	NEUROTICISM	CLOSENESS to the personality of clinically-diagnosed neurotics

Appendix G

Continued

NOT a person who would naturally tend to come to a leadership position	LEADERSHIP	TYPE of person commonly elected to leadership in face-to-face groups
GENERALLY non-creative	CREATIVITY	INVENTIVE and creative in any area in which he possesses the ability and training

Appendix H

The College and University Environment Scales*

1. Practicality. This combination of items suggests a practical instrumental emphasis in the college environment. Procedures, personal status, and practical benefits are important. Status is gained by knowing the right people, being in the right groups, and doing what is expected. Order and supervision are characteristic of the administration and of the classwork. Good fun, school spirit, and student leadership in campus social activities are evident.

2. Community. The combination of items in this scale describes a friendly, cohesive, group-oriented campus. The environment is supportive and sympathetic. There is a feeling of group welfare and group loyalty, which encompasses the college as a whole. The campus is a community. It has a congenial atmosphere.

3. Awareness. The items in this scale seem to reflect a concern and emphasis upon three sorts of meaning--personal, poetic, and political. An emphasis upon self-understanding, reflectiveness, and identity suggest the search for personal meaning. A wide range of opportunities for creative and appreciative relationships to painting, music, drama, poetry, sculpture, architecture, etc., suggest the search for political meaning and idealistic commitment. What seems to be evident in this sort of environment is a stress on awareness, and awareness of self, of society, and of esthetic stimuli.

4. Propriety. The items in this scale suggest an environment that is polite and considerate. Caution and thoughtfulness are evident. Group standards of decorum are important. On the negative side, one can describe propriety as the absence of demonstrative, assertive, rebellious, risk-taking, inconsiderate, convention-flouting behavior.

5. Scholarship. The items in this scale describe an academic scholarly environment. The emphasis is on competitively high academic achievement and a serious interest in scholarship. The pursuit of knowledge and theories, scientific or philosophical, is carried on rigorously and vigorously. Intellectual speculations, an interest in ideas as ideas, knowledge for its own sake, and intellectual discipline--all these are characteristic of the environment.

---

*C. Robert Pace, Preliminary Technical Manual, College and University Environment Scales. Educational Testing Service, 1963, pp. 24-5.

Appendix I

2 X 5 Analysis of Variance Model

			MALE	FEMALE
16PF, Factor A	Leader Categories	Social-Political Action		
		Religious		
		Residence Hall		
		Socio-Activities		
		Fraternal		

Source of Variation	SS	df	Mean Square	F
Between Groups	SS between	k-1	SS/df	$\frac{\text{MS between}}{\text{MS within}}$
Within Groups	SS within	N-K	SS/df	
Total	SS total	N-1	SS/df	$\frac{\text{MS total}}{\text{MS within}}$
Sex	SS sex	K-1=1	SS/df	$\frac{\text{MS Sex}}{\text{MS within}}$
Leader Categories	SS L.C.	K-1=4	SS/df	$\frac{\text{MS L.C.}}{\text{MS within}}$
Interaction	SS I.	K-1=4	SS/df	$\frac{\text{MS I.}}{\text{MS within}}$

Appendix J

TABLE 57. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR B OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	21.335	4	5.334	2.165	NS
Sex	0.018	1	0.018	0.007	NS
Group X Sex	1.149	4	0.287	0.117	NS
Within groups	554.289	225	2.463		
Total	576.791	234			

TABLE 58. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR H OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	85.657	4	21.414	0.834	NS
Sex	10.783	1	10.783	0.420	NS
Group X Sex	33.267	4	8.317	0.324	NS
Within groups	5773.919	225	25.662		
Total	5903.626	234			

Appendix J

Continued

TABLE 59. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR Q_3 OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	69.195	4	17.299	1.921	NS
Sex	0.286	1	0.286	0.032	NS
Group X Sex	81.124	4	20.281	2.253	NS
Within groups	2025.894	225	9.003		
Total	2176.499	234			

TABLE 60. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR FACTOR Q_4 OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	104.586	4	26.147	0.978	NS
Sex	5.305	1	5.305	0.199	NS
Group X Sex	147.685	4	36.921	1.382	NS
Within groups	6012.434	225	26.722		
Total	6270.010	234			

Appendix J

Continued

TABLE 61. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER ANXIETY FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	1742.612	4	435.653	1.164	NS
Sex	0.075	1	0.075	0.000	NS
Group X Sex	2185.373	4	546.343	1.459	NS
Within groups	84231.662	225	374.363		
Total	88159.722	234			

TABLE 62. F RATIOS FOR DIFFERENCES AMONG GROUPS OF LEADERS FOR THE SECOND-ORDER NEUROTICISM FACTOR OF THE 16PF

Source of variation	Sum of squares	df	Mean square	F	P
Group	3147.764	4	786.941	1.883	NS
Sex	553.807	1	553.807	1.325	NS
Group X Sex	2187.884	4	546.971	1.309	NS
Within groups	94015.780	225	417.848		
Total	99905.235	234			

Appendix K

TABLE 63. DIFFERENCES AMONG LEADERS IN TERMS OF SEX

Sex	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Male	28	24.7	26	24.7	22	25.7	23	23.6	27	27.3	126
Female	18	21.3	20	21.3	26	22.3	21	20.4	24	23.7	109
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 4
Chi Square: 2.33*
*Non-significant

TABLE 64. DIFFERENCES AMONG LEADERS IN TERMS OF BIRTH ORDER

Birth order	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
First born (includes only children)#	22	21.9	26	21.9	23	22.9	20	21.0	21	24.3	112
Last born	14	12.3	8	12.3	14	12.9	9	11.8	18	13.7	63
Between first and last born	10	11.8	12	11.8	11	12.2	15	11.2	12	13.0	60
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 6.86*
*Non-significant.
#The first born and only child categories were combined because the only child expected frequencies were extremely low.

TABLE 65. DIFFERENCES AMONG LEADERS IN TERMS OF MOTHER'S OCCUPATION

Occupation	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Professional and Managerial	12	7.8	8	7.8	8	8.2	6	7.5	6	8.7	40
Clerical, Sales, Manual, Mechanical#	11	11.2	14	11.2	13	11.6	11	10.6	8	12.4	57
Housewife	23	27.0	24	27.0	27	28.2	27	25.9	37	29.9	138
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 8.48*
*Non-significant.
#The mechanical and manual row was combined with the clerical and sales category because of low expected frequencies.

TABLE 66. DIFFERENCES AMONG LEADERS IN TERMS OF FATHER'S OCCUPATION

Occupation	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Professional and Managerial	26	20.2	20	20.2	15	21.0	23	19.3	19	22.3	103
Clerical and Sales	10	11.5	7	11.5	13	12.1	13	11.1	16	12.8	59
Mechanical and Manual#	10	14.3	19	14.3	20	14.9	8	13.6	16	15.9	73
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 14.79*
*Non-significant.
#The agriculture, marine, and forestry row was combined with this row because of extremely low expected frequencies.

TABLE 67. DIFFERENCES AMONG LEADERS IN TERMS OF FATHER'S EDUCATIONAL LEVEL

Years of school completed	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
11 or less	5	4.7	4	4.7	8	4.9	4	4.5	3	5.2	24
12 years	14	13.9	16	13.9	14	14.5	13	13.3	14	15.4	71
13-15 years	2	6.5	5	6.5	9	6.7	5	6.2	12	7.1	33
16 or more	25	20.9	21	20.9	17	21.9	22	20.0	22	23.3	107
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 12
Chi Square: 13.32*
*Non-significant.

TABLE 68. DIFFERENCES AMONG LEADERS IN TERMS OF FIRST ELECTED OFFICE

Grade level when first elected	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Grades 1-6	17	16.8	11	16.8	18	17.6	20	16.1	20	18.7	86
Grades 7-9	14	15.3	17	15.3	19	15.9	8	14.6	20	16.9	78
Grades 10-16#	15	13.9	18	13.9	11	14.5	16	13.3	11	15.4	71
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 11.46*
*Non-significant.
#The grades 13-16 category was combined with the grades 10-12 category because the expected 13-16 frequencies were extremely low.

Appendix K

Continued

TABLE 69. DIFFERENCES AMONG LEADERS IN TERMS OF PERCEIVED CHIEF LONG-TERM BENEFIT TO BE GAINED FROM PRESENT GROUP LEADERSHIP EXPERIENCE

Chief benefit	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
Service or Vocational#	8	6.1	1	6.1	6	6.3	7	5.8	9	6.7	31
Personal Development	38	39.9	45	39.9	42	41.7	37	38.2	42	44.3	204
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 4
Chi Square: 6.77*
*Non-significant.
#The service and vocational categories were combined because the expected vocational frequencies were extremely low. The "other" category was dropped because there were no observed frequencies.

TABLE 70. DIFFERENCES AMONG LEADERS IN TERMS OF PARTICIPATION IN CAMPUS GROUPS OTHER THAN THE GROUP REPRESENTED IN THIS STUDY

Other organization	Pol.		Relig.		Res.		Activ.		Frat.		Total
	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	Obs	Exp	
None	20	15.1	18	15.1	17	15.7	16	14.4	6	16.7	77
Religious	8	11.6	10	11.6	13	12.0	11	11.0	17	12.8	59
Social-activities or Political#	18	19.3	18	19.3	18	20.3	17	18.6	28	21.5	99
Total	46	46	46	46	48	48	44	44	51	51	235

Degrees of freedom: 8
Chi Square: 14.61*
*Non-significant.
#The social-activities and political categories were combined because the expected political frequencies were extremely low.

REFERENCES

1. Bereiter, Carl, and Freedman, M. B. "Fields of Study and People in Them." in *The American College*, pp. 563-596, edited by Nevitt Sanford. New York: Wiley and Sons. 1962. 1084p.

2. Carson, Gary L., and Parker, Clyde A. "Leadership and Profiles on the MMPI and CPI." *Journal of College Student Personnel*. 7:14-18, 1966.

3. Cass, James. "What Happened at Berkeley?" *Saturday Review*. 48:47-49, 66-69, January 15, 1965.

4. Coker, David L. *Diversity of Scholastic Aptitude, Non-Intellective Attributes, and Environmental Characteristics Among Students and Campuses*. Unpublished Doctor's dissertation, School of Education, Indiana University, Bloomington. 1966. 236p.

5. Draper, Hal. *Berkeley: The New Student Revolt*. New York: Grove Press. 1965. 246p.

6. Duncan, D. B. "Multiple Range Test for Correlated and Heteroscedastic Means," *Biometrics*. 13:164-176, 1957.

7. Edwards, Allen L. *Experimental Design in Psychological Research*. New York: Holt, Rinehart, and Winston. 1960. 398p.

8. Garrett, Henry E. *Statistics in Psychology and Education*. New York: David McKay. 1958. 478p.

9. *Handbook for the Sixteen Personality Factor Questionnaire*. The Institute for Personality and Ability Testing, Champaign, Illinois. 1957. 52p.

10. Hays, William L. *Statistics for Psychologists*. New York: Holt, Rinehart, and Winston. 1963. 719p.

11. Heist, Paul. "Intellect and Commitment: The Faces of Discontent." in *Order and Freedom on the Campus*, pp.61-69, edited by Owen A. Knorr and W. John Minter. Boulder: Western Interstate Commission for Higher Education. 1965. 100p.

12. Henry, Joan L. *Student Characteristics and Perceptions of Indiana University*. Unpublished Doctor's dissertation, School of Education, Indiana University, Bloomington. 1966. 260p.

13. Holtzman, Wayne H. "Adjustment and Leadership: A Study of the Rorschach Test," *Journal of Social Psychology*. 36:179-189, 1952.

14. Johnson, Richart T., and Frandsen, Arden N. "The California Psychological Inventory Profile of Student Leaders," *Personnel and Guidance Journal*. 41:343-345, 1962.

15. Katz, Joseph, and Sanford, Nevitt. "Causes of the Student Revolution," *Saturday Review*. 48:64-66, 76-80, December 18, 1965.

16. Kristol, Irving. "What's Bugging the Students?" *The Atlantic Monthly*. 216:108-111, November, 1965.

17. Pace, C. R. "Perspectives on the Student and His College." in *The College and the Student*, pp. 76-100, edited by Lawrence E. Dennis and Joseph F. Kauffman. Washington, D.C.: American Council on Education. 1966. 390p.

18. Pace, C. R. *Preliminary Technical Manual: College and University Environment Scales*. Princeton: Educational Testing Service. 1963. 81p.

19. Schreck, Thomas C. *Student Leadership*. Unpublished memorandum, Division of Student Personnel, Indiana University, Bloomington. May 1, 1961. 2p.

20. Shaffer, Robert H. *The Changing Role of Students in Today's College*. Unpublished memorandum, Council of Student Personnel Associations in Higher Education, Indiana University, Bloomington. December, 1965. 5p.

21. Stern, G. G.; Stein, Morris I.; and Bloom, Benjamin S. *Methods in Personality Assessment*. Glencoe: Free Press. 1956. 271p.

22. Trow, Martin. "Some Lessons From Berkeley." in *The College and the Student*, pp. 126-130 edited by Lawrence E. Dennis and Joseph F. Kauffman. Washington, D.C.: American Council on Education. 1966. 390p.

23. Watts, William A., and Whittaker, David N. "Free Speech Advocates at Berkeley," *Journal of Applied Behavioral Science*. 2:41-62, 1966.

24. Williamson, E. G. "Student Personnel Workers' Responsibility for Students' Expression on Social Issues," Personnel and Guidance Journal. 40:123-128, 1961.

25. Williamson, E. G., and Cowan, John L. "Academic Freedom for Students: Issues and Guidelines." in The College and the Student, pp. 252-283, edited by Lawrence E. Dennis and Joseph F. Kauffman. Washington, D.C.: American Council on Education. 1966. 390p.

26. Williamson, E. G., and Hoyt, Donald. "Measured Personality Characteristics of Student Leaders." Educational and Psychological Measurement. 12:65-78, 1952.